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Scottish Birds is the quarterly journal for SOC members, and is published in March, June, September and December annually.

Containing original papers relating to ornithology in Scotland, topical articles, bird observations, reports of rare and scarce bird sightings, alongside branch and Club-related news, our members tell us that *Scottish Birds* is one of the key benefits of belonging to the SOC. Its different sections have been developed to meet the wide needs of the birdwatching community, and the publication is renowned for its first-class photography.

An archive of the journal is available on the SOC website, where links can be found to other Club publications including the *Online Scottish Bird Report.*

More about the SOC...

On the one hand, a birdwatching club. Established in 1936, the Scottish Ornithologists' Club (SOC) is Scotland's bird club with 15 branches around the country and a growing membership of over 3,000. Through a programme of talks, outings, conferences and other events, it brings together like-minded individuals with a passion for birds, nature and conservation.

On the other, a network of volunteers across Scotland, gathering vital, impartial information about our wild birds. The data we collect is made available to conservationists, planners and developers, and is used by organisations such as the RSPB, as one of the first points of reference in informed conservation planning.

Club Headquarters can be found at Waterston House, Aberlady, overlooking the scenic local nature reserve. Housed within, is the George Waterston Library, the largest ornithological library in Scotland, and the Donald Watson Gallery - one of the jewels in the Waterston House crown, exhibiting wildlife art all year-round.

Join us...

As well as receiving *Scottish Birds* every quarter, SOC members have access to a programme of talks and outings across Scotland and affiliation to a local branch of the Club. New members choosing to pay their subscription by direct debit are eligible to a free thank you gift.

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For more information about the Club and its activities, including details of how to join, please visit www.the-soc.org.uk or contact Waterston House on 01875 871 330, or email membership@the-soc.org.uk

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Dear Member...

Plate 218. Ruth Briggs, East Lothian, October 2022. © *Ruth Briggs*

How do you describe or classify your interest in birds? Are birds your absolute main focus, or one of a number of groups you study, or part of a broad interest in ecology, wildlife and landscapes? How do you rate your identification skills? Are you content that you know as much as you want, or do you aspire to learn more? Do you primarily observe birds near home, or do you travel further afield specifically to find different species in different habitats? Are you excited by rarities? Is your interest essentially a hobby or is it part of an academic or professional role? Do you keep a life list, submit records and/or carry out monitoring? Do you have a story to tell about what triggered your initial interest? And which section of *Scottish Birds* do you go to first? Answers to these and many other questions are key to the whole Club continuing to be what members want it to be and to offer, whether that's through HQ staff, Branches or other initiatives. We have a huge range of interest and expertise across our membership, even before we consider diversity in respect of members' age, location, ethnic background, health and more, and where I suggest there are significant gaps.

One of the qualities I love about SOC, and which motivates me in my role as President, is the strength we derive from a membership ranging from amateur to professional, generalist to specialist, leader (including committee members, project organisers, outings leaders, bird recorders and more) to 'ordinary' member for whom the Club is all about enjoyment, learning, supporting and sharing, indoors and out. As a scientist, I love to read, in this journal, the results of dedicated study of individual species or groups and see how these contribute to our wider understanding of trends and conservation needs. I'm impressed by the skills and drive of those who find and record our rarest visiting species. I welcome the reports illustrating local activities and some of the wider aspects of membership.

I'm very much looking forward, with just a little trepidation, to going 'on the road' in the New Year and meeting more members during our winter programme of evening talks. I might succeed in entertaining you a little. I'll definitely offer you the opportunity to join in (in an engaging, easy way) so we can share ideas and help each other in our aims for the Club.

Let me use this opportunity to highlight a couple of more people-focused items for you. Have you found Mark Lewis' podcast yet, with its great title, 'Some Ornithological Chat'? Entertaining with serious bits, recommended listening! And hot off the press is the launch, at this year's Club Conference in November, of a new SOC Fellowship award. Details to follow in the next issue of *Scottish Birds*.

This foreword is a letter! Do feel free to write back to me, about anything SOC-orientated. You can reach me by email: president@the-soc.org.uk or via a letter addressed to me, care of Waterston House.

With special thanks to all contributors to this issue of *Scottish Birds* and best wishes for the winter season.

Ruth Briggs, SOC President

Plate 219. Juvenile Sandwich Tern (Green 3C2), East Pier, Stranraer, Dumfries and Galloway, 30 July 2021. *© Brian D. Henderson*

Origins and behaviour of marked Sandwich Terns observed at Stranraer/Loch Ryan, Dumfries & Galloway

B.D. HENDERSON

One hundred and forty-nine observations of marked Sandwich Terns seen around Stranraer/Loch Ryan showed that individuals had been ringed at 18 locations in six countries. Leg banding with colour-coded Darvic rings accounted for most sightings. Most sightings occurred during post-breeding pre-migratory stopover periods during the mid- to late summer months. Most marked individuals were sighted once and only 4% were re-sighted with five years elapsing between some sightings. Some birds had not been reported since their initial ringing 24 years earlier. The study showed that stopover durations at Stranraer/Loch Ryan are shortening and that Sandwich Terns are moving through earlier with en-masse movements replacing protracted post-breeding movements. Age classifications from different ringing locations showed monthly variations. Only one juvenile was re-sighted as an adult. No juveniles were recorded from ringing sites on the east coast of England whereas all Dutch-ringed birds were juveniles.

Introduction

In Dumfries and Galloway, numbers of breeding Sandwich Terns *Sterna sandvicensis* peaked in the mid-twentieth century (Sharrock 1976) but showed a marked decline thereafter with breeding only at a few secluded sites (Balmer *et al.* 2013). Breeding continued at the Loch Ryan stronghold, peaking in the late 1990s (Collin 1999), but later declined with no confirmed breeding since 2006. Recent breeding attempts on the northwest Rhins failed due to human disturbance and livestock encroachment and breeding on the northeast Rhins met with little success (pers. obs., Henderson 2020).

Observations of Sandwich Terns around Stranraer/Loch Ryan in recent years have shown an increase in the number of marked birds, especially juveniles, recorded. North Solway Ringing Group (NSRG) has not carried out any colour-marked ringing schemes on Sandwich Terns in the region (Duncan Irving pers. comm.). Concerted efforts have been undertaken to identify marked individuals, to source their origins and to record their behaviour at Stranraer/Loch Ryan. The purpose of this paper is to present the results of these investigations.

Methodology

Sandwich Terns were found on a near daily basis during July, August and September and occasionally in October. Roosts on the East Pier at Stranraer and along the southern, south-western and western shores of Loch Ryan were observed up to two hours either side of high tide. Details logged included a six-figure grid reference, location, specific site name, date, time, flock size and any other information e,g. the ratio of adults to juveniles and of juveniles in fresh plumage to juveniles in worn plumage.

Marked birds were initially spotted using 10×42 binoculars. The alpha-numeric inscriptions on Darvic rings, colour and metal ring combinations and flag colours together with their locations on the birds' legs were confirmed using a spotting scope. Digiscoped images were taken to facilitate the reading of colour coded-darvic and metal ring combinations. The data were logged on Microsoft Excel spreadsheets. Ringers or ringing scheme coordinators were identified and contacted via the European Colour-Ring Birding website (www.cr-birding.org/colourprojects) or by personal contacts. Details of the sightings were forwarded to the ringers/ringing scheme coordinators and the life histories of the birds were requested.

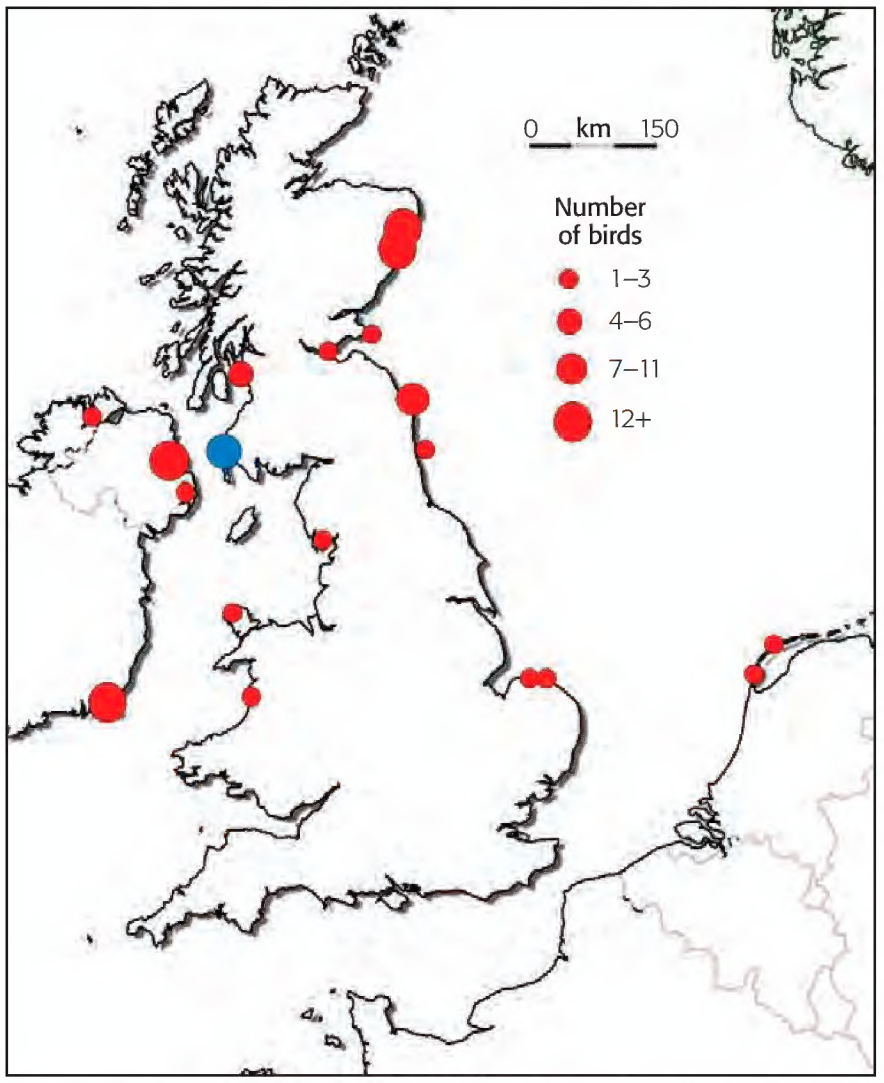

Figure 1. Ringing locations (red circles) of marked Sandwich Terns sighted at Stranraer/Loch Ryan (blue circle), Dumfries and Galloway 2009–2021. Size of red circles corresponds to the number of recoveries of marked birds ringed at that location.

Results

A total of 149 sightings of marked Sandwich Terns were recorded from September 2009 to August 2021. Life histories showed that marked individuals had been ringed at 18 locations in six countries (Figure 1). Most had been ringed at locations in Scotland and the Republic of Ireland with the remainder at locations in Northern Ireland, England, Wales and the Netherlands (Table 1).

The majority (84%) of marked birds had colour-coded Darvics on one tarsus. The remainder had two plain colour rings (9%); metal rings only (6%), a single colour ring (0.5%) or a colour-coded flag (0.5%). Of the total number of sightings, 140 (95%) were attributed to 95 known individuals with a further nine (5%) colour-ringed birds not identified. Marked individuals were sighted once (67%), twice (20%), thrice (8%), four times (3%) or on five occasions (2%). The vast majority of sightings (54%) occurred at the former Stena Line ferry terminal on the East Pier, Stranraer and at Bishop Burn, Loch Ryan (40%). The remainder were seen around

Table 1. Ringing location details of Sandwich Terns sighted at Stranraer/Loch Ryan, Dumfries and Galloway 2009–2021. Distances between Stranraer/Loch Ryan and the ringing locations were taken as direct lines and calculated using the android Air-Line (Version 1.1) app. Sandwich Terns are ringed on the islands of Sgarbheen and Inish at Lady's Island Lake, Co. Wexford.

Ringing Location	Country	Distance km	Coordinates	Number of birds	% of total
Larne Lough	Northern Ireland	50	54.8276°N 5.7901°W	17	16
Strangford Lough	Northern Ireland	64	54.4830°N 5.5830°W	1	1
Hunterston Sands	Scotland	91	55.7233°N 4.8983°W	5	5
Hodbarrow RSPB	England	139	54.2000°N 3.2655°W	1	1
Blackness Castle	Scotland	151	56.0060°N 3.5161°W	1	1
Inch Island	Republic of Ireland	158	55.0667°N 7.5000°W	2	2
Cemlym Bay	Wales	174	53.4128°N 4.5075°W	1	1
Isle of May	Scotland	209	56.1833°N 2.5667°W	1	1
Coquet Island	England	226	55.3500°N 1.5000°W	2	2
Inner Farne	England	230	55.6225°N 1.6285°W	7	7
Ynyslas, Dyfi NNR	Wales	285	52.5269°N 4.0514°W	1	1
Lady's Island Lake	Republic of Ireland	305	52.1977°N 6.3925°W	24	23
Ythan Estuary	Scotland	325	57.3130°N 2.0015°W	15	14
Forvie NNR	Scotland	329	57.3510°N 1.9448°W	21	20
Scolt Head	England	432	52.9820°N 0.7067°E	1	1
Blakeney Point	England	450	52.9597°N 1.0116°E	2	2
Texel	Netherlands	676	53.0548°N 4.7977°E	1	1
Griend	Netherlands	680	53.2519°N 5.2544°E	1	1

Loch Ryan at Wig Bay (3%), Sandmill (1%), Millburn (1%) and at Stranraer Harbour (1%). The number of sightings of marked birds showed annual variation as did age classification ratios (Figure 2). Age classification totals showed 59% were adults and 41% were juveniles.

The earliest seasonal sighting of a marked individual was a juvenile at the former Stena Line ferry terminal on the East Pier, Stranraer on 6 July 2021. The latest seasonal sighting of a marked individual, also a juvenile, was at Bishop Burn, Loch Ryan on 20 October 2017. The earliest seasonal sighting of a marked adult was at the former Stena Line ferry terminal on the East Pier, Stranraer on 7 July 2021. Almost half (48%) of all sightings occurred during July, with fewer occurring during August (32%) and September (19%) and fewest during October (1%). Annual sightings, since 2015, showed monthly fluctuations in the number of marked birds seen during the mid- to late summer and early to mid-autumnal months.

Mean earliest first sighting date for the period 2015–2017 was 24–25 July (range 21 July to 1 August), compared to 15–16 July (range 6 July to 30 July) for the period 2019–2021. Mean latest sighting date for the period 2015–2017 was 25–26 September (range 28 August to 20 October) compared to 19–20 August (range 21 July to 28 September) for the period 2019–2021.

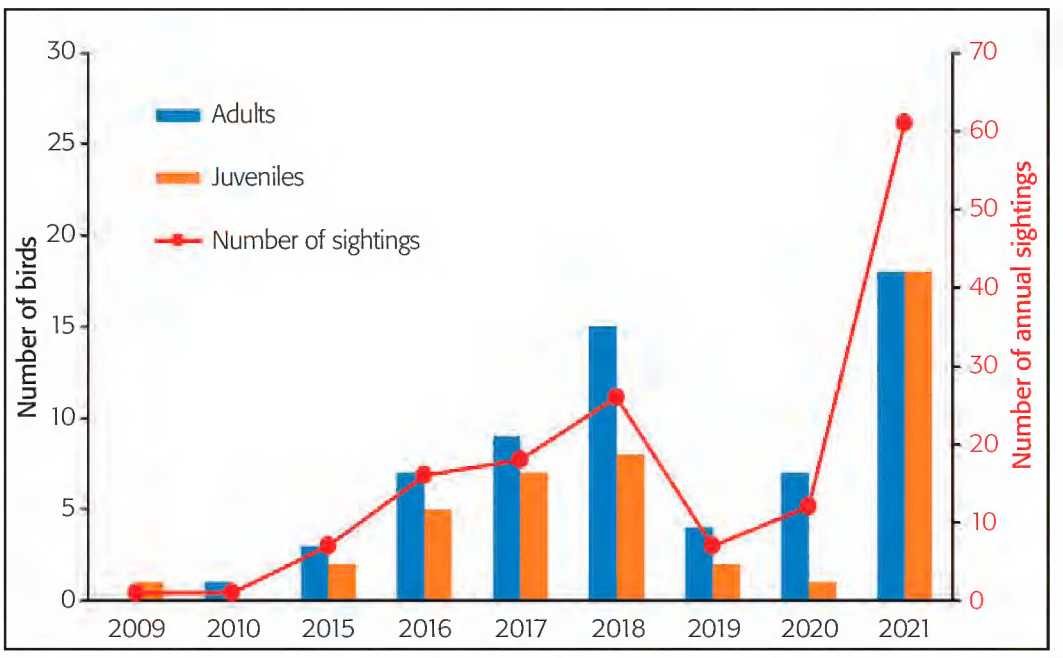

Figure 2. Total number of annual sightings and age classification totals of individually marked Sandwich Terns observed at Stranraer/Loch Ryan, Dumfries and Galloway 2009, 2010 and 2015–2021.

Pre-migratory stopover periods of stay (durations) were variable throughout the study. From 2015 to 2017 stopover durations were more protracted from late July to September and occasionally into October. Since 2020, an en-masse movement over a much shorter duration from the last three weeks of July into the first week of August has been observed.

Birds from Scotland

The majority of marked birds originating from Aberdeenshire (Forvie NNR and Ythan Estuary) were seen during August (49%) and September (42%) with fewest during October (3%) and July (6%). Age profiles showed that 84% were adults and 16% were juveniles. Earliest bird was an adult on 8 July 2021; the latest was a juvenile, with an accompanying unmarked adult, on 20 October 2017. The majority of adults were sighted during August (55%) and September (41%) with the fewest during July (4%). Most juveniles were sighted during September (60%) with fewest during July and October (both 20%), the earliest seen on 30 July 2017. All marked birds from Fife (Isle of May) and Falkirk (Blackness Castle) were juveniles seen during the late summer and early autumnal months. All marked birds originating from the west coast of Scotland had been ringed at Clyde (Hunterston Sands). Most were seen during July (80%) with fewest during August and September (both 10%). Age profiles showed that 40% were adults and 60% were juveniles. Earliest was an adult on 7 July 2021, the latest a juvenile on 7 September 2016. All adults were sighted multiple times, some in successive years, and all were seen during July. All juveniles were sighted only the once during the mid- to late summer and early autumn months.

Birds from England

All marked birds originating from islands off the Northumberland coast (Inner Farne and Coquet Island) were adults, most of which were seen during July (42%) and August (33%) with fewest during September (25%). The earliest bird was on 11 July 2020, the latest on 7 September 2017. All marked birds from Cumbria (Hodbarrow RSPB) and Norfolk (Scolt Head and Blakeney Point) were adults seen during July (75%) or September (25%).

Plate 220. Adult Sandwich Tern (Orange C88), East Pier, Stranraer, Dumfries and Galloway, 29 July 2021. *© Brian D. Henderson*

Plate 221a–c. a) Adult Sandwich Tern (Yellow K9N), East Pier, Stranraer, Dumfries and Galloway, 16 July 2020. **b)** Juvenile Sandwich Tern (Orange flag AJL), Bishop Burn, Loch Ryan, Dumfries and Galloway, 9 August 2019. **c)** Adult Sandwich Tern (Dark Blue 529), East Pier, Stranraer, Dumfries and Galloway, 30 July 2021. © *Brian D. Henderson*

Birds from Wales

Marked birds from north and west Wales were juveniles from Anglesey (Cemlyn Bay) or adults from Ceredigion (Dyfi NNR) seen during the late summer months.

Birds from Northern Ireland

All marked birds from County Antrim (Larne Lough) were juveniles seen during July. Earliest individual was on 6 July 2021, the latest on 30 July 2021. The sole sighting of a metal-ringed bird from County Down (Strangford Lough) showed that it had been ringed 24 years earlier.

Birds from the Republic of Ireland

Marked birds from County Donegal (Inch Island) were first or second calendar year birds seen during July.

Most marked birds from County Wexford (Lady's Island Lake) were seen during August (48%) and July (29%) with fewest during September (23%). Age profiles showed that 45% were adults and 55% were juveniles. Earliest was an adult on 8 July 2021; the latest was a juvenile on 28 September 2017. Most adults were sighted during July (57%) and August (36%) with fewest during September (7%). Most juveniles were sighted during August (59%) and September (35%) with fewest during July (6%), the earliest being seen on 16 July 2020. No juveniles from County Wexford were seen during 2021.

Birds from the Netherlands

Birds originating from Texel (Utopia-E5) and Terschelling (Griend) were juveniles seen during August (67%) or September (33%). Earliest was on 16 August 2015, the latest on 7 September 2017.

Site fidelity

Few marked individuals stayed around Stranraer/Loch Ryan and fewer showed any site fidelity. Only four marked individuals Yellow ECJ (Aberdeenshire), White K3T (County Wexford), Dark Blue UPK (Northumberland) and White E07 (Clyde) were re-sighted again. Of these, Yellow ECJ, Dark Blue UPK and White E07, initially seen as adults and were re-sighted in later years. White K3T, first seen as a juvenile, was re-sighted as an adult two years later.

Discussion

Prior to 2015, marked individuals were noted during sporadic day visits to Stranraer/Loch Ryan. The substantial increase thereafter was due to the author relocating to Stranraer during November 2014.

A security fence at the former Stena Line ferry terminal on the East Pier at Stranraer, which has had all infrastructures removed, affords close viewing with minimal disturbance to the roosting terns. At Bishop Burn, Loch Ryan most terns can be safely viewed on the edge of the shingle or mudflats when the terns are *c.* 20–30 m away by using high magnification (×50–×70) from a stationary car thus eliminating disturbing the roosting or communal gathering birds. All colour-ringed individuals originated from Aberdeenshire but most metal rings were not read in the field. It was not possible to ascertain if the same colour-ringed individuals were returning to Stranraer/Loch Ryan.

The high proportion of adults sighted from the Aberdeenshire, Northumberland and Norfolk breeding sites suggests dispersing birds from these east coast sites were post-breeding adults engaging in interchange movements between breeding colonies and traditional feeding sites, which is common amongst adult Sandwich Terns (Smith 1975, Noble-Rollin & Redfern 2002, Popov *et al.* 2012, Fijn *et al.* 2014).

The large number of juveniles seen during 2021 was largely attributed to a new colour-ringing scheme having been established at Larne Lough, Northern Ireland. Ninety-seven pulli were fitted with colour coded-darvics at Blue Circle Island at Larne Lough during June 2021 (Roisin Kearney pers. comm.) of which 18% were sighted the following month at Stranraer/Loch Ryan. Juvenile sightings showed rapid post-fledging dispersal from a number of ringing locations. Latterly, the vast majority of marked juvenile terns stayed for short periods suggesting an eagerness to embark on their southward migration. This was confirmed by re-sightings by observers in England, Wales, the Republic of Ireland and France (Richard Donaghey, Roisin Kearney, Iain Livingstone, Tony Murray and Ewan Weston pers. comm.).

The low site fidelity shown by both age-classes, suggests that most Sandwich Terns use Stranraer/Loch Ryan for short duration stopover stagings. Sightings may be randomly attributed to the rich feeding that Loch Ryan affords or simply associated with the pre-migration scattered wandering traits of the terns following post-breeding and post-fledging dispersal. The small number of Dutch-ringed Sandwich Terns seen mirrors the very few sightings of Dutch-ringed birds visiting sites in the United Kingdom (Noble-Rollin & Redfern 2002, Forrester *et al.* 2007, Fijn *et al.* 2014, Hughes *et al.* 2021).

The life histories of marked individuals showed irregular and nomadic movements by all age-classes after being seen at Stranraer/Loch Ryan. Some moved north and north-east before heading south, while others used the east coast then moved back over to the west coast in late summer.

Some were recorded further afield in Denmark, France and Norway (Ewan Weston pers. comm.). The terns then made their way down to the west coast of Africa with sightings off the Mauritanian and Senegalese coasts, at Kartong in The Gambia and at Swakopmund and Walvis Bay in the Republic of Namibia (Iain Livingstone, Tony Murray and Ewan Weston pers. comm.), with some making it to Gansbaai, Western Cape, South Africa (Iain Livingstone pers. comm.). This echoes migration movements following post-breeding and post-fledgling dispersal from colonies in the United Kingdom (Wernham *et al.* 2002, Mitchell *et al.* 2004).

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Plate 222. Breeding adult Wood Sandpiper, Highland, June 2021. © *Ron Summers*

Habitat associations and site fidelity of breeding Wood Sandpipers in northern Scotland

R.W. SUMMERS, B. ETHERIDGE & N. CHRISTIAN

Habitats used by breeding Wood Sandpipers were described to inform decisions for potential habitat management. Wood Sandpipers nested on dry or boggy ground, usually in a clump of vegetation. Species forming clumps included Bog Myrtle, Hare's-tail Cottongrass, Heather and Purple Moor-grass. Broods were led to flushes, pools in bogs, ponds and lochans where emergent sedges (often Bottle Sedge) provided cover over shallow water, mud or Sphagnum. Habitat management to create ponds for duck-shooting has benefited breeding Wood Sandpipers, a process that could be extended for their conservation, but with an emphasis on small ponds or pools that are less likely to attract Otters that may otherwise pose a threat to sandpiper broods. Wood Sandpipers are site faithful, making the implementation of habitat management of value to returning birds.

Introduction

Descriptions of the habitat used by birds are a first step in understanding the features that birds may select when making a choice of where to live. This is particularly important for the conservation of species that are rare (Stanbury *et al.* 2021).

The Wood Sandpiper, *Tringa glareola* (Plate 222), has an extensive breeding range across the boreal zone of the Palearctic. The European population declined between 1970 and 1990 to an estimate of over 350,000 pairs (BirdLife International 2004). Declines were linked to drainage of bogs in Finland and greater winter mortality in years when the Sahel region of Africa was dry (Zwarts *et al.* 2009).

By contrast, the Wood Sandpiper population is small in Scotland, estimated at a maximum of 26 pairs in 2007 (Kalejta-Summers & Chisholm 2009), and 32 pairs at 23 sites in 2018 (Eaton & Holling 2020). Birds from this population migrate to West Africa (Senegal and Mauritania) for winter (Summers *et al.* 2021). The European breeding habitat comprises bogs (Cramp & Simmons 1983), which may include a low density of Mountain Pines (see Appendix for scientific names of plants) in Slovenia (Vogrin 1998) or small birches in north Norway (RS pers. obs.). However, there are few detailed descriptions of their habitats for nesting and rearing broods (Kalejta-Summers 2007).

Wood Sandpipers usually nest on the ground (e.g. amongst Dwarf Birch on dry heath in Norway; Kalejta-Summers & Summers 2015) but are also secondary users of other birds' nests in trees (e.g. in Finland; Pulliainen & Saari 1991).

The aim of our study was to make descriptions of the nesting and brood habitats of Wood Sandpipers. Some lochans in our study area had been created for shooting ducks, providing an opportunity to check if such managed sites had also been successful in attracting sandpipers. To be of lasting benefit, it is preferable that management is carried out for species that are site faithful. We therefore described site fidelity.

Methods

The study was carried out in Highland (Inverness-shire and Sutherland) during 2015–2022, apart from 2020 due to the covid pandemic. We avoid mentioning locations to maintain their confidentiality. In both areas, the habitat was largely treeless moorland with bogs, pools in bogs, ponds (water bodies with no inflow or outflow streams), lochans (small lochs with inflow and outflow streams) and streams. Artificial lochans for duck shooting were created by damming streams. The vegetation of the bogs largely comprised Heather, Bog Myrtle, Hare's-tail Cottongrass, and *Sphagnum* spp. with smaller amounts of Deergrass and Cross-leaved Heath. The bogs were intersected with flushes (water running over vegetation) and pools where the vegetation largely comprised emergent sedges *Carex* spp. and *Sphagnum* spp. around the edges.

Sites were visited approximately weekly during May to establish the presence of breeding birds. Nests were searched for during late May, and broods were found in the first half of June. Breeding adults were trapped and ringed with unique permutations of colour rings so that they could be identified during our subsequent visits. Wing length (measured with a stopped ruler) was used to sex birds in two pairs; females have longer wings than males (Cramp & Simmons 1983).

Habitat descriptions were made within a 0.5 m radius of each nest and within a 1 m radius where broods were found. Physical features and plant species were noted as being dominant (over 30% cover) or sub-dominant. Features and species with less than 5% cover were ignored. A distinction was made between plants at ground/water level (e.g. pondweeds) and those with a vertical structure (e.g. sedges).

A laser range finder was used to measure the lengths and breadths of ponds and lochans. The angle of sloping ground was measured with a clinometer between two vertically held poles each marked at a height of 1 m and set 15 m apart.

Results

Nine nests were found on moorland or bogs (Plate 223). Five were on sloping ground, including one on a slope of seven degrees (Table 1). Most occurred in clumps of vegetation, whilst others were amongst vegetation with an even height or adjacent to a clump. The plants which provided the main cover for the nests that were in clumps were Bog Myrtle, Hare's-tail Cottongrass, Heather and Purple Moor-grass. The nests not within clumps were amongst Deergrass, Hare's-tail Cottongrass and Heather (Table 1).

Table 1. Plant species and physical features at nests of Wood Sandpipers. Large symbols - dominant features, small symbols - subordinate features. Filled circles - plants with a vertical structure, open circles - plants at ground level. Y = yes. N = no.

Nest number	N1	N2	N3	N4	N5	N6	N7	N8	N9
In a clump of vegetation	Y	Y	Y	Y	Y	N	N	N	N
Slope of ground (degrees)	7	4	0	2	0	2	0	2	0
Cladonia sp.	○	○	○		○	○	○	○	○
Sphagnum sp.			○			○	○	○	
Other mosses	○	○							
Heather	●	●	●		●	●	●		●
Cross-leaved Heath	●		●	●	●	●	●		
Bog Myrtle		●	●	●			●	●	
Purple Moor-grass	●			●					
Deergrass	●	●	●		●	●	●	●	
Hare's-tail Cottongrass	●				●			●	
Common Cottongrass						●			●
Sedge (unidentified)		●							
Carnation Sedge			●			●			

Plate 223. Wood Sandpiper clutch within a clump of Hare's-tail Cottongrass, Highland, June 2018. © *Ron Summers*

Plate 224. Wood Sandpiper chicks, Highland, June 2019. © *Ron Summers*

Twelve broods were located (Plate 224). Seven were found on the margins or middle of lochans or ponds, where the habitat consisted of shallow water or a mud or *Sphagnum* substrate through which sedges (often Bottle Sedge and Common Sedge) emerged (Table 2, Plates 225a–e). Three were by pools in bogs and two were by flushes with small (*c.* 0.5 m wide) slow-moving streams trickling over vegetation. Small islets (1–2 m diameter) with Heather, Bog Myrtle or grass cover occurred within some lochans and ponds (Plates 225b and c). Chicks were often found at the edges of such islets.

The five ponds and lochans used by broods had the following dimensions: 270 m long × 70 m wide, 220 × 80 m, 130 × 80 m, 90 × 55 m and 50 × 15 m. Two streams had been dammed, creating lochans for duck shooting, but also providing areas of shallow water and mud with emergent sedges at their margins.

One brood of recently hatched chicks that was found in a bog was later led 180 m by the adults, which were colour-ringed for identification, to a lochan with islets of mud and emergent Bottle Sedge.

One colour-ringed bird (ring number BV99560) was present in successive years from 2015 to 2021 (not searched for in 2020), nested in the same general locality and used the same brood

Table 2. Plant species and physical features at sites where Wood Sandpiper broods were found. Large symbols - dominant features, small symbols - subordinate features. Filled symbols - plants with a vertical structure, open symbols - plants or features at ground/water level. Blue - wet features and plants growing in water or wet ground, red - plants on islets. Superscript 1 - the *Sphagnum* species were *S. fallax, S. capillifolium* and *S. magellanica.* 2 *S. fallax.*

Brood number	B1 Lochan	B2 Pond	B3 Pond	B4 Lochan	B5 Lochan	B6 Lochan	B7 Lochan	B8 Flush	B9 Flush	B10 Pool	B11 Pool	B12 Pool
Water (running)								○	○			
Water (standing)	○		○	○	○	○	○			○	○	○
Mud			○	○	○						○	
Sphagnum sp.	○●[1]	○[2]	●				●	○		●	○●	●
Polytrichum sp.		○●						○				
Bog Pondweed						○			○	○		○
Heather	●	●								●		●
Cross-leaved Heath	●		●								●	
Bog Myrtle	●		●		●			○	○	●	●	○●
Purple Moor-grass			●					○				
Deergrass										●		●
Hare's-tail Cottongrass	●		●					○			●	●
Common Cottongrass		○								○		
Star Sedge								○	○			
Carnation Sedge								○				
Bottle Sedge	○	○		○	○	○	○			○	●	○●
Common Sedge	○●		○									
Slender Spike-rush			○			○						
Bulbous Rush									○			
Soft Rush		○●	●						○			
Jointed Rush									○			
Bogbean			○									
Grass			●									

site in two years (Figure 1). This bird was judged to be a male because the wing length (124 mm) was smaller than two mates he had in different years (130 and 131 mm). In 2021, the brood was led from a bog with a small pool to larger pool (30 × 3 m) (Plate 225e), where it resided for at least another nine days. Another bird used the same nest cup in two consecutive years. Further, a colour-ringed bird used two closely spaced ponds and a lochan (a and b were 270 m apart, and b and c were 440 m apart) as brood sites in three different years. In one year, it used two of these sites (a and b).

Discussion

Wood Sandpipers are secondary users of the nests of tree-nesting species (often thrushes) in Finland (Pulliainen & Saari 1991), though they are not reliant on such nests. In our study areas, all the nests were on the ground. That ranged from dry heathery slopes to bogs with Bog Myrtle or Hare's-tail Cottongrass. Therefore, it seems unlikely that nest sites were limiting.

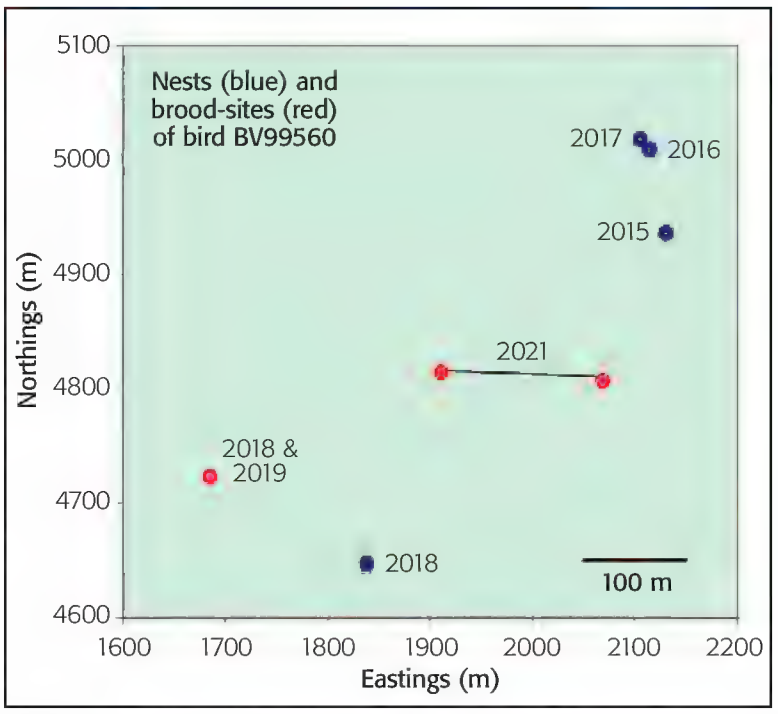
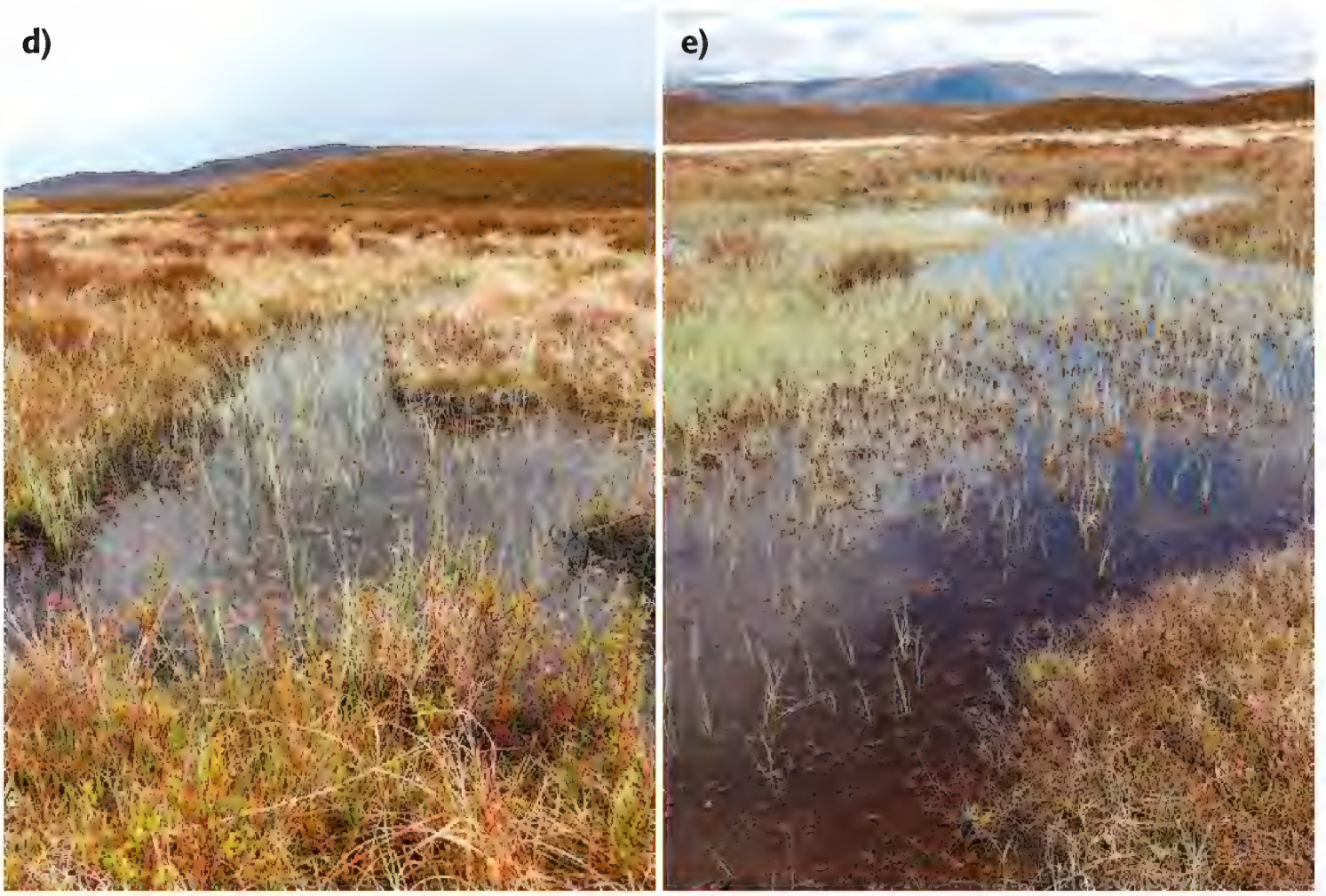


Figure 1. The relative locations of nests (blue dots) and broods (red dots) of a male Wood Sandpiper BV99560 (ring number) in different years. It was paired with the same mate during 2017 to 2019, but with a different one in 2021. The 2018 and 2019 brood sites were in a flush. In 2021, the brood moved from a small pool in the bog to a larger pool, having crossed a stream.

a)
b)
c)



Plates 225a–e (opposite & above). Sites where broods of Wood Sandpipers were found. **a.** A pond with a surrounding bog of *Sphagnum* and Bottle Sedge; **b.** A bay of a lochan with emergent sedges in shallow water and islets of Heather; **c.** A pond with emergent rushes (Slender Spike-rush) and islets of Bog Myrtle and grass; **d.** A small pool with pondweed and few emergent sedges in a bog composed largely of Hare's-tail Cottongrass and Bog Myrtle; **e.** A large pool with pondweed, sedges and Heather islets at the edge of a bog. Site b had been dammed, Highland, June 2019 and May 2022. © *Ron Summers*

Feeding sites for adults and broods are probably more important in the selection of breeding habitat. Here, the common features were boggy margins of flushes, pools, ponds and lochans where the substrate was either mud or *Sphagnum*, through which emergent sedges grew, providing cover for chicks. The importance of sedges growing in shallow water concurs with findings from an earlier study that took place partly in one of our study areas and at another site in Scotland (Kalejta-Summers 2007). Therefore, it seems that shallow standing water or flushes with sedges is the key habitat for Wood Sandpiper broods. It is notable that one lochan in the study with steep-sided banks was not used, perhaps because access to and from the lochan would have been difficult for the chicks. A feature of three of the lochans and ponds used by broods was the presence of small shallow-sided islets of Heather and Bog Myrtle amongst the sedges, adding to the heterogeneity of the habitat. The islets may provide dry sites where Wood Sandpiper chicks could be brooded or dense vegetation for greater cover.

To enhance duck-shooting, two lochans had been created by damming streams. The margins of these lochans had areas of shallow water or mud with emergent sedges, which provided foraging areas for Wood Sandpiper chicks. Therefore, there is the potential to create further brood sites. However, the ponds and lochans in this area were also inhabited by Otters *Lutra lutra*, which are potential predators of the chicks. It is possible that the abandonment of a Black-headed Gull *Larus ridibundus* colony (present up to 2017) of around 100 pairs at one lochan was due to disturbance by Otters. The finding of several dismembered gull chicks at the edge of this lochan showed that a predator hunted here. The lochan was not used by Wood Sandpipers during or after the years that the gulls were nesting. Therefore, it is recommended that if pools or ponds are to be created for Wood Sandpipers, they should be small (10–30 m long) and shallow, and not suitable for Otters (e.g. Plate 225e).

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Appendix. Scientific names of plants mentioned in the text.

Alder *Alnus glutinosa*
Birch *Betula* sp.
Bog Myrtle *Myrica gale*
Bog Pondweed *Potamogeton polygonifolius*
Bogbean *Menyanthes trifoliata*
Bottle Sedge *Carex rostrata*
Bulbous Rush *Juncus bulbosus*
Carnation Sedge *Carex panicea*
Common Cottongrass *Eriophorum angustifolium*
Common Sedge *Carex nigra*
Cross-leaved Heath *Erica tetralix*
Deergrass *Trichophorum cespitosum*
Dwarf Birch *Betula nana*
Hare's-tail Cottongrass *Eriophorum vaginatum*
Heather *Calluna vulgaris*
Jointed Rush *Juncus articulatus*
Mountain Pine *Pinus mugo*
Purple Moor-grass *Molinia caerulea*
Slender Spike-rush *Eleocharis uniglumis*
Soft Rush *Juncus effusus*
Star Sedge *Carex echinata*

Oystercatchers at a spring roost in Badenoch in the Scottish Highlands

N.E. BUXTON

Inland breeding Oystercatchers roost overnight on the banks of the River Spey at locations determined by groups of associated flood-plain fields used for feeding and nesting. Counts of birds at one roost were carried out over three decades. Earliest birds returned to the roost from their wintering areas in January but most in February and March; first arrival date being correlated with minimum winter temperature. Maximum numbers on the roost on any day were correlated with time of sunset. Numbers using the roost fell significantly over the study period although the mean mass of birds caught increased by 5%.

Introduction

Inland breeding by Oystercatchers *Haematopus ostralegus* has been well known for many decades (e.g. Harvie-Brown & Buckley 1895, Nethersole-Thompson & Nethersole-Thompson 1986, Dennis 1995, Holloway 1996) occurring most commonly in northern England and Scotland (Wernham *et al.* 2002, Balmer *et al.* 2013). Holloway believed the behaviour to have begun in the early to mid-19th century. Since the 1960s the ecology and behaviour of coastal Oystercatchers have been intensively studied (Goss-Custard 1996), but, other than atlas surveys of range and numbers (O'Brien 2007), little detailed research has been carried out on the birds on their United Kingdom inland breeding grounds (Nethersole-Thompson & Nethersole-Thompson *loc. cit.*).

In the Scottish Highlands Oystercatchers arrive back on the breeding grounds in late winter/early spring and leave in late July and August prior to the onset of winter. They roost communally at specific localities focussed around concentrations of breeding birds (Forrester & Andrews 2007).

During summer in northern Scotland Oystercatchers are prominent, common birds of arable and upland habitats but inland they are absent in winter, as in other northern countries, such as the Faeroe Islands (Williamson 1948), However, in common with other waders their status over recent decades, seems to be changing (Eaton *et al.* 2015, Buxton & Duncan. 2021). Other than Christie (2003) the species has been little studied on its Badenoch breeding grounds. This paper presents information on roosting Oystercatchers in a high-density breeding area. It describes the pre-breeding communal roosting behaviour in Badenoch over 28 years, including the pattern of spring arrival, the relationship with winter temperatures, the weights of birds caught at the roost and long-term trends in numbers.

Study Area

The study was carried out along the floodplain of the River Spey and specifically between the villages of Kingussie and Newtonmore in Badenoch in the central Highlands of Scotland (Figure 1a). In this area the river was particularly slow-flowing for an upland river, passing through a broad area of haughs (floodplain fields) which, along with the shingle areas in the river, were used as the breeding sites. The river edges were semi-natural vegetation. The roost was on rough grassland and showed brighter green due to the increased nutrients from faecal material deposited over the years. The haughs were improved grassland fields used for stock grazing, largely sheep with some cattle. Cropping was restricted to a little barley and turnips, although this decreased over the period of the study.

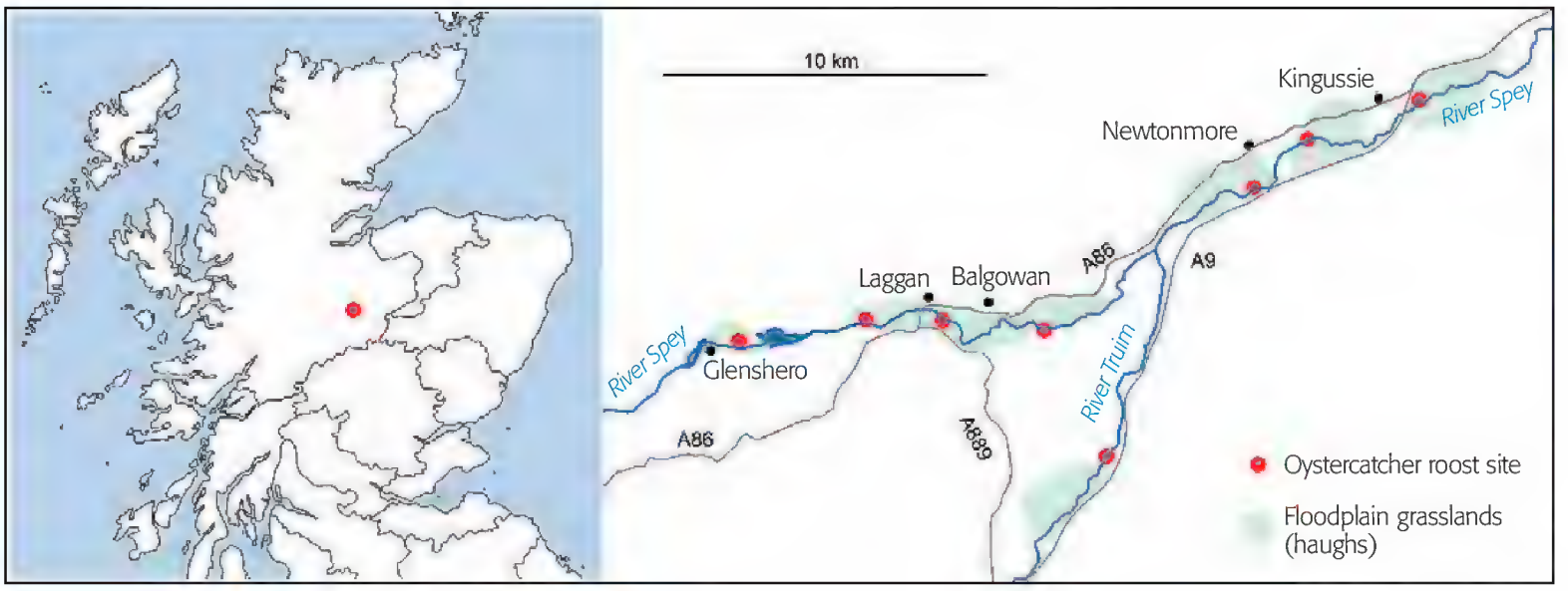

Figure 1. Study area **a)** and location of roost sites **b)**.

Methods

The study took place between the years of 1996–2019. Regular visits to the study area enabled the first observed arrival of birds from their wintering areas to be recorded. Initially roost sites were located by walking the riverbanks just prior to dusk as soon as birds started arriving back from their wintering grounds. Discussions with local farmers and farm workers confirmed the long-term traditional nature of these gatherings. Subsequent regular visits were made to the major roost near Newtonmore in Badenoch on the banks of the River Spey to monitor its build-up through the early spring until sufficient birds were present to warrant an attempt at a cannon-net catch. During 2015 to 2018 the build-up of the night-time roost was monitored from first arrival through to early June. Birds present were counted at five-minute intervals from the first arrivals until darkness fell. No attempt was made to monitor the breakup of the roost as birds left for their feeding areas, although intermittent observations suggested birds started to leave soon after first light.

A sample of birds was caught from the roost by cannon net involving 11 catches in ten years over the 24 years of study (Table 1). All birds caught were metal-ringed, aged, and biometrics (weight, wing and bill length) recorded. In one of the early years, 2003, birds were dye-marked with picric acid for an additional study by a student. In 2018 and 2019 72 birds were individually colour-ringed with an inscribed combination of a letter and a number.

Scottish climate data (temperature, rainfall etc.) were obtained from the Great Britain and Regional weather summaries (Met. Office 2020).

Table 1. The numbers of Oystercatchers caught and retrapped in subsequent years or controlled when ringed elsewhere.

Date of cannon net catch	Number caught	Number recaptured (%)	Number controlled (%)	Mean weight (g)	Weight range (g)
29.03.96	123	0 (0)	7 (5.7)	513.4	452–595
19.03.97	80	15 (18.8)	3 (3.8)	510.1	430–565
23.03.98	54	26 (48.1)	3 (5.6)	525.7	455–623
18.03.02	189	63 (33.3)	15 (7.9)	529.0	442–603
14.03.03	94	51 (54.3)	2 (2.1)	534.4	474–636
20.03.06	78	39 (50)	7 (9)	545.6	450–630
04.04.15	52	12 (23.1)	0	539.7	436–651
20.03.16	45	20 (43.5)	1 (2.2)	571.7	505–695
17.03.18	26	6 (17)	0	547.5	486–626
30.03.18	10			577.8	535–667
30.03.19	44	17 (38)	1 (2.3)	545.9	473–657
Total	**795**	**249**	**39**	**531.3**	**430–695**

Results

Use of the roost

Birds typically returned to Badenoch from early February through March (Figure 2), although rarely as early as the first week of January, frequently at night. Birds were heard flying north calling on a broad front through the north-south pass of Drumochter in the Grampian mountains. By the last week in March, the northward movement had slowed or stopped, and numbers on the main night-time roost had started to decrease.

From first arrival birds gathered at specific locations centred on the breeding grounds, although these were not well recorded prior to this study, due to most birds gathering either as dusk fell and/or late in the evening. In Badenoch seven such locations were identified along the Spey from Kingussie to the upper Spey around Glenshero and one in the haughs of the River Truim, a tributary to the Spey (Figure 1b). These roosts tended to collect birds which fed in fields and semi-natural grassland within 1–2 km. The study roost was immediately to the north of Newtonmore, at the confluence of the Spey with the Allt Laraidh, with a preference for the steep elevated southern grass slope of the river although, on occasions, the flatter, river-level, sandy grassland on the northern bank was also used.

The annual first arrival date recorded varied between 5 January and 2 March but there was no trend over the study period (Figure 2). Most (79%) first arrival dates were in February; three, in January, were in the very cold winter of 2010. First arrival dates were significantly correlated with minimum winter temperatures ($r=0.5122$, $df=14$, $P<0.05$) on the breeding grounds and slightly more closely correlated with the annual minimum winter temperatures in North West England and North Wales where the birds wintered ($r=0.6214$, $df=16$, $P<0.01$, Figure 3). It is unsurprising that there was a relationship between the minimum temperatures in both areas as the temperatures across the UK are even more strongly correlated ($r=0.9174$, $df=17$, $P<0.001$).

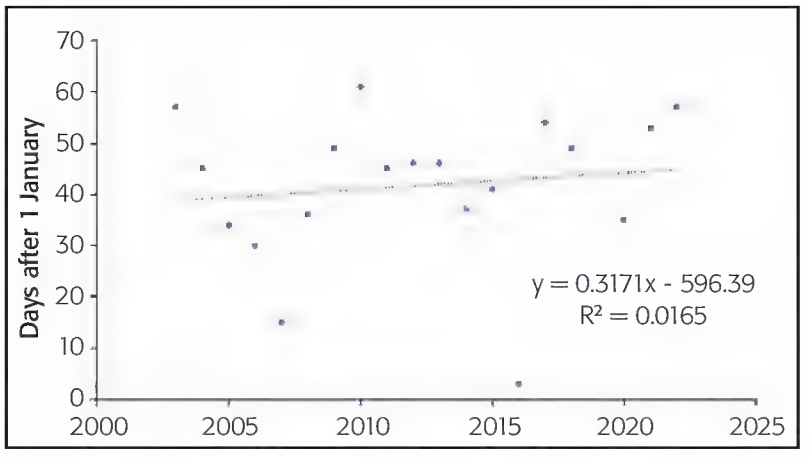

Figure 2. The date on which Oystercatchers were first seen each year in the study area.

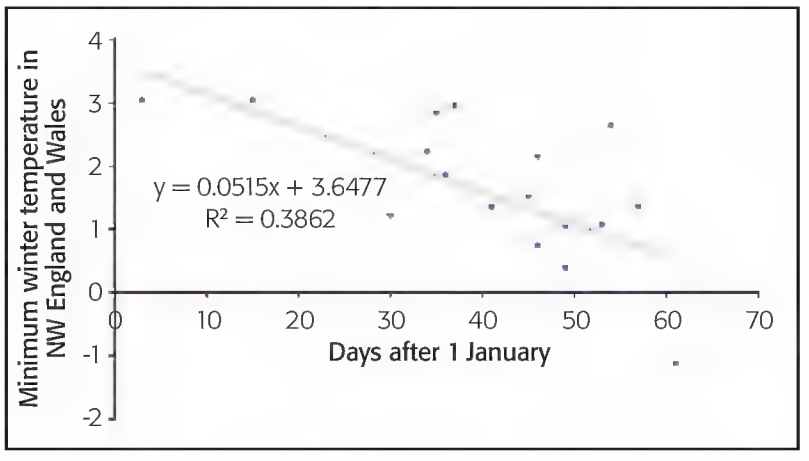

Figure 3. The relationship between the date Oystercatchers were first observed in the study area and the minimum temperature in north-west England and Wales.

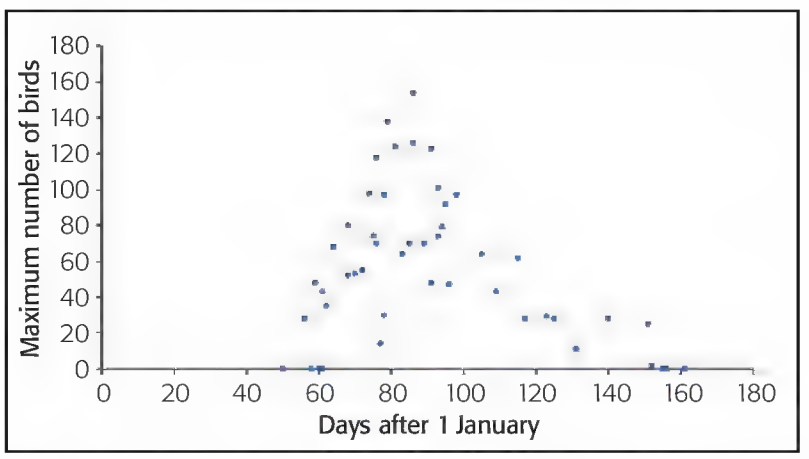

Figure 4. The change in maximum Oystercatcher roost size from the birds first arrival in Badenoch to early summer (Data from different years combined).

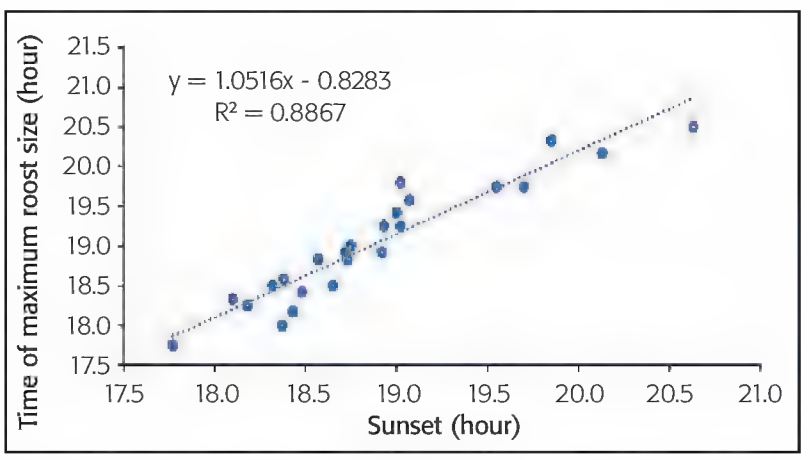

Figure 5. The relationship between time of attaining maximum roost size on a particular day and the time of sunset.

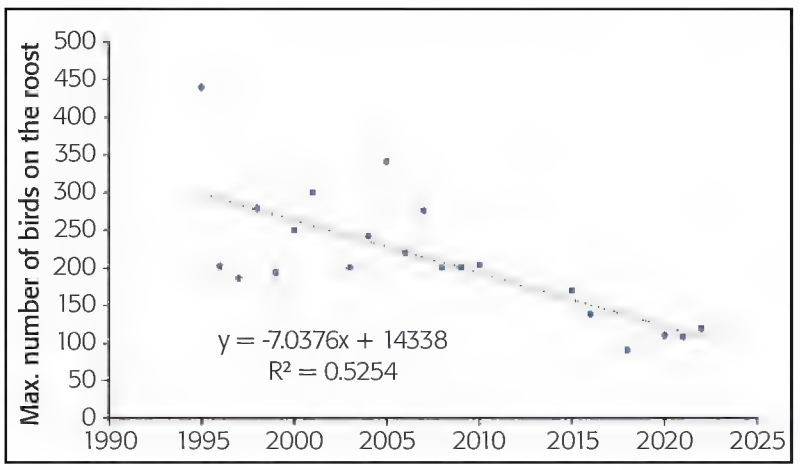

Figure 6. The maximum size of the night-time roost over the study period.

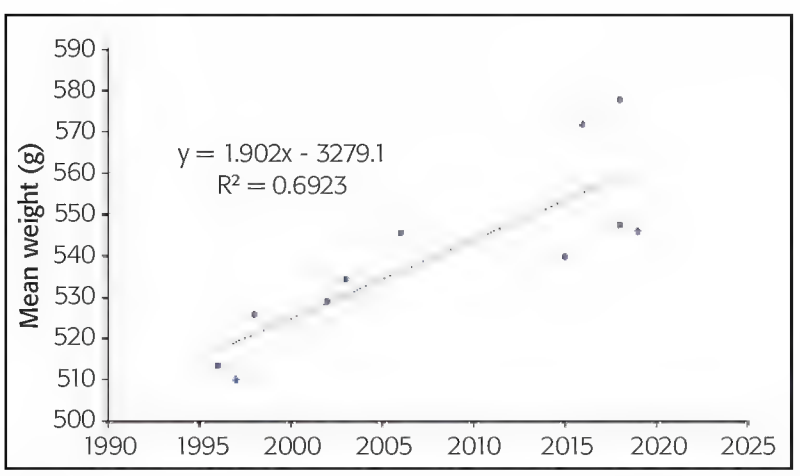

Figure 7. The mean annual weight of Oystercatchers caught during the study period.

After the first arrivals, numbers built up quickly, to reach a peak in the second half of March, after which numbers fell rapidly through April and then steadily through May (Figure 4). Through May, June and July the location was more than just a night-time roost, birds were often present through the day, presumably non-breeders, failed breeders and off-duty birds. From July until mid-August, Oystercatchers could be heard at night and occasionally seen flying south during the day as they left the area for their wintering grounds and the roost was abandoned for another year. Only a very occasional bird was heard after the second week of August.

Maximum numbers recorded at the roost were very strongly correlated with the time of sunset ($r=0.9416$, $df=22$, $P<0.001$, Fig. 5), stressing the importance of counting consistently at last light.

Numbers recorded at the roost, and consequently in the breeding population, clearly decreased significantly by almost 73% over the study period ($r = 0.7248$, $df=19$, $P< 0.001$, Figure 6). No data are available from earlier decades but, in the mid-1990s, numbers were at a peak of up to 440 birds with over 300 using the roost in the early 2000s. Over the subsequent years maximum annual numbers counted decreased until, by 2019, barely 100 birds were using the roost.

Wintering areas of birds

Five hundred and forty-six individual birds were caught; in total 795 captures when including birds recaptured in one or more subsequent years (Table 1). Birds were retrapped up to five times. The number of birds retrapped was influenced by the number and size of catches and the interval between those catches. Thirty-nine birds were controlled, having been ringed further south in non-breeding areas. The majority were ringed in Wales (>70%), especially north Wales, and Ireland, but a few (two birds) were ringed as adults during winter on the east coast of England.

Table 2. Badenoch colour-ringed Oystercatcher sightings around the Irish Sea.

Geographical area	No. of individual birds	No. of sightings	No. of years	Dates birds seen
North-west England	2	2	2	08.02.19, 29.11.20
North Wales	3	3	2	30.03.19, 27.01.21
Irish Republic	4	15	5	11.11.18, 22.10.19, 03.01.20, 31.01.20, 15.07.20, 17.07.20, 13.08.20, 12.10.21, 13.10.21, 14.10.21, 15.11.21, 26.01.22, 07.01.22
Northern Ireland	2	3	1	23.02.20, 11.08.20, 14.09.20
South-west Scotland	3	4	2	18.07.18, 18.11.18, 22.11.18, 23.01.20
Total	**14**	**27**		

Prior to numbers decreasing from a maximum in mid-March some birds appeared to use this roost as a transit locality for further north. One bird was controlled on 14 March 2003 having been ringed in the spring of its second year nine years earlier at Loch Fleet.

Birds caught after mid-March were presumed to all be potentially local breeders. In 1997 none of the 78 birds colour-dyed were reported outwith the Badenoch local area during the breeding season and, of the 72 birds colour-ringed in March 2018 and 2019, fourteen were subsequently seen, all to the south of Badenoch on coasts around the Irish Sea (Table 2). There was some evidence of site fidelity to wintering areas with five birds being recorded in more than one winter in the same Irish Sea localities. Only two birds went further south than the Irish Sea, both to the Glamorgan coast.

Few chicks were locally ringed during the period of this study. However, in a catch of 94 birds in 2003, four birds (4.2%) had been ringed as chicks within 5 km of the roost between five and 16 years previously.

Condition of birds

All birds caught were fully adult, known to be at least four years old. Mean mass of birds caught increased significantly over the study period by over 30 g (5%) (Figure 7, $r=0.8320$, $df=9$, $P<0.01$). Only on two occasions did the mean weight decrease from that of the preceeding year; the first in 1997 and the second in the very cold spring of 2018. In the latter, the ground was constantly frozen for many days and birds could not feed; they were observed on fields trying to feed but unable to insert the bill into the soil. There were no alternative unfrozen locations. In frozen, but less severe, conditions in other years birds fed in fields with road-salt runoff and snow-free areas by probing for earthworms and other smaller items. In 2018 five dead birds were found on or near the roost; three were predated but two were fresh and very emaciated weighing 330 g & 385 g respectively. Two catches were made in that March; the mean mass of birds in the second catch was 30 g heavier than on the initial catch 13 days earlier (Figure 7).

Plate 226. Oystercatcher, Deeside, North-East Scotland, June 2012. © *Harry Scott*

Oystercatchers at a spring roost in Badenoch in the Scottish Highlands

Discussion

Whilst this study was largely descriptive it has subsequently posed a number of questions. In most years Oystercatchers started returning to their breeding grounds in mid-February with largest numbers on the night-time roost in the second half of March. This is much earlier than the March/April described in 1800s by Harvie-Brown. Whilst too casual observations, through missing the small numbers of early birds, will skew the data towards the later season, Harvie-Brown was usually a careful observer and recorder. So is this a real change with birds now returning earlier than a century ago?

Few of the roosting birds caught in this study were already ringed outwith the Badenoch area. Sightings away from Badenoch in November to February in the later years suggest most breeding birds in the central Highlands over-winter on the Irish Sea coast. Even with sightings all round the Irish Sea birds rarely have further than 480 km (300 miles) to travel on passage, which could be accomplished in less than a single day. Consequently, these communal gatherings require a rapid adjustment of roosting behaviour (probably within 24 hours) from that necessary on the coastal wintering grounds to that on an inland, often riverine, habitat; from a twice-daily roost with timing varying in time and precise location in relation to height and timing of high tide to a static location with nightly gatherings defined by dawn and dusk. Interestingly all the birds, when first caught in Badenoch, were fully grown with deep red eyes i.e. most birds were in at least their fourth winter (Prater *et al.* 1977).

Dennis (1995) suggested that in southern Badenoch the distribution had increased in the late 19th and early 20th centuries but suspected that, in recent years, numbers were decreasing. This specific roost has decreased to less than a quarter of its original size over just less than 25 years. Other roosts form in the vicinity but there was no evidence that these have increased and collectively their current size could not counteract the reduction in the Newtonmore roost; thus a real decrease in the local population has occurred. In previous decades potential breeding habitat along the upland River Spey has always been extensive. In recent years the river corridor habitat has changed with consolidation of shingle and growth of river-edge trees, but this has not directly affected this roost; however, it and reduction in arable cropping, has removed breeding habitat. Oystercatchers are long-lived birds (maximum 41 years, British Trust for Ornithology 2021). Consequently, with many of the birds recaught on a number of subsequent occasions, Badenoch Oystercatchers are obviously highly site-faithful, returning to very specific, known areas to breed. No subadult birds were present in the roost and Swann (1985) has suggested that birds of the year from the Highlands remain on their wintering grounds further south, being unlikely to return to their breeding grounds until about their fourth summer. Hence whilst subadult recruitment is unknown and detailed data are not available, personal observations suggest local chick production is low. As Oystercatchers are long-lived, recruitment into the breeding population could be reduced many years before it becomes apparent through a significant drop in the adult population.

Each year, Oystercatchers were caught on dates within a three-week period ranging from 14 March to 4 April. During the 23 years to 2018 the mean weight of a bird increased by 30 g (5%). Whether this was due to birds returned to Badenoch being able to gain weight more rapidly, or new birds arriving from the south in better condition, is unclear. However, the latter is unlikely since severe weather tended to affect the whole UK and, moreover, there is no evidence of weight gain in Moray Firth Oystercatchers over a similar period (Highland Ringing Group data). Hence the two catches in March 2018, 13 days apart, showed how rapidly birds, in a suitable area, can gain weight, perhaps especially after a period of stress, on the arrival of milder weather. If birds were, on average, 30 g heavier at the end of March they had put on weight at the rate of, at least, 2.3 g/day. One possibility is that whatever changes in habitat might have taken place in recent decades to reduce availability of suitable breeding habitat and productivity, feeding conditions early on the breeding grounds have improved such that arriving birds can more rapidly improve their body condition on their arrival.

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Avian influenza leads to mass mortality of adult Great Skuas in Foula in summer 2022

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In summer 2022, a highly pathogenic avian influenza virus (HPAIV) H5N1 pandemic struck, affecting numerous species of colonial seabirds all over the Northern Hemisphere. Great Skuas were especially badly affected by the outbreak, that had in fact begun in 2021 on a much smaller scale. This paper reports on exceptional mortality levels, poor reproductive success and a major population decline in Great Skuas breeding in Foula (Shetland). Systematic searches (May–August) produced 1,400 corpses of Great Skuas of which 100 had been ringed earlier in life. The distribution of corpses was non-homogeneous, with clusters of corpses in relatively wet areas, mostly known as clubs and bathing sites. Mortality became apparent in early May, peaked in the second half of May and early June, but continued through the summer at lower levels. In June, Apparently Occupied Territories (AOT) of Great Skuas were counted and it appeared that numbers had declined by 57% since 2015, the most recent earlier survey (from 1,820 to 778 AOT). Given the ongoing mortality in July and August, a decline in the order of magnitude of 60–70% in occupied territories is more likely. Great Skuas commenced breeding as usual in May and June, but most attempts failed, mainly because one or both partners got infected and died. The rapid spread of infections over Foula has probably been facilitated by the habit of Great Skuas to bathe and socialise at freshwater lochs and pools, sites where close conspecific interactions occur and where all major pathways of infection could play a role: through accumulating of virions in water, aerosols shed from the respiratory tract, via dropped faeces, or by scavenging. Studies to assess the presence, but especially the persistence of infectious influenza viruses in wetlands are particularly urgent.

Introduction

Mass mortality events affecting Great Skuas *Stercorarius skua* were reported in July 2021 across several Scottish islands, prompting a disease investigation which subsequently detected highly pathogenic avian influenza virus (HPAIV) subtype H5N1 clade 2.3.4.4b as the cause of the mortalities (Banyard *et al.* 2022). The first dead Great Skuas were reported at the end of June, HPAIV infections were first confirmed on 20 July, and the last casualties were found in autumn 2021. Affected areas were Hirta (St Kilda), the Flannan Isles, Orkney, and Shetland (Fair Isle, Mainland, Papa Stour, Noss, Yell, Fetlar, Unst). H5N1 infections were detected in samples taken at St Kilda, the Flannans and on Fair Isle. At both St Kilda (with a population of at least 211 Apparently Occupied Territories (AOT) in 2019; JNCC 2022) and Fair Isle (430 AOT in 2020; JNCC 2022), more than 10% of the breeding birds were found dead during the outbreak, with the very likely possibility that more birds died but were not found (Banyard *et al.* 2022). Breeding productivity at the colonies was very low in 2021, possibly as a consequence of the HPAIV outbreak.

The island of Foula (Shetland) is home to the largest colony of Great Skuas in the world, but whether this population had been affected by the pandemic in 2021 was unclear, until Gear (2022) sent her annual report to the SOTEAG Ornithological Monitoring Programme in Shetland. As in most other colonies, Great Skuas in Foula had a poor breeding season in 2021, with an estimated 3–4 times as many dead adults as normal found in the colonies (Gear 2022). Club sites were mainly deserted and only 41 AOT were found on the long-term productivity monitoring plot along

Da West Burn (Da Bitten). Most adults left Foula early in the season and productivity was assessed as 'zero' (Gear 2022). Although no dead birds from Foula were tested for HPAIV, we and others assumed that the elevated adult mortality at Foula in 2021 was most likely to have been due to the virus, as shown to be the case elsewhere in Shetland. An already planned visit to Foula in 2022 by the first author was therefore seen as an opportunity to assess the damage (an apparent loss in numbers of breeding birds) of the 2021 pandemic by conducting a full census of the island, which would be the first census since 2015.

In May 2022, however, almost immediately after the Great Skuas had returned from their wintering areas, further mass mortality events in colonial seabirds were reported in Shetland, with Gannets *Morus bassanus* and Great Skuas being most severely affected. Seabirds sampled from around Shetland in May 2022 tested positive for HPAIV H5N1 (Glen Tyler, NatureScot pers. comm.). Given these unfortunate developments, immediate assessments of the damage inflicted by HPAIV infections on seabirds in Foula were felt as more urgent than just a colony census. Five main tasks were agreed upon to investigate the pandemic: (1) assessment of Great Skua mortality, (2) assessments of other 'suspect' (sea-)bird mortality in Foula, (3) sampling of Great Skuas to test for HPAIV infections, (4) a full colony census of Great Skuas, and a comparison with 2007/2015 data, and (5) studies of the reproductive performance of Great Skuas in Foula. Given the first signs of mass mortality that occurred in Foula, work was conducted with the following priorities: (1) to assess the damage, (2) to determine temporal and spatial trends in mortality patterns, and (3) to understand where and how infections occurred.

The H5N1 lineage of the avian influenza virus arose in the early 1990s and became endemic in aquatic poultry in southeast Asia (Chen *et al.* 2005). A H5N1 outbreak affecting wild geese was reported in 2005, and this was the first reported instance of a highly pathogenic strain of avian influenza causing mass mortality in wild birds. In Europe, further outbreaks have occurred annually since 2006 (Globig *et al.* 2009, Cui *et al.* 2022), while Asian-origin HPAIV infections in wild and domestic birds in the New World were detected for the first time in winter 2014/15 (Jhung & Nelson 2015). In virtually all earlier outbreaks, migratory Anseriformes (mostly wild geese and ducks) and Charadriiformes (waders and some gulls) were involved, and mortality issues were most prominent in winter. Seabirds were seemingly unaffected, or mass mortality events could not be attributed to HPAIV outbreaks, even though certain pelagic seabird species, notably auks, also acted as hosts of low pathogenic influenza virus variants (Huang *et al.* 2014, Wille *et al.* 2014, Lang *et al.* 2016). As a result, the mass mortality of breeding colonial seabirds, such as that developed in early summer 2022 and that rapidly spread over the Northern Hemisphere, took most seabird ecologists by surprise.

Materials and methods

Mortality rates of Great Skuas (and other birds) were assessed on the basis of systematic searches in breeding as well as in non-breeding habitats of this species, all over the island, May–July 2022. All corpses were identified and photographed, geographical positions and postures were recorded, legs were checked for rings, the level and type of scavenging was documented, and the birds were marked (primaries cut in half on both wings) to avoid double counts. For each carcass, the level of decomposition was categorized on a seven-point scale, to estimate the date of dying relative to the date of corpse detection (Appendix 1).

Initial plans to collect fresh carcasses of Great Skuas for virologic analysis fell through. To compensate for the lack of evidence that HPAIV caused the mass mortality in 2022, we carefully described and filmed symptoms of sick and dying individuals (Appendix 2), and logged postures of fresh dead corpses. In early July, three sets of swab sticks were sent to the island in order to swab the buccal cavity and cloaca of three freshly dead Great Skuas for HPAIV testing. The sampling was carried out at Ristie, in Nedderafandal and in Sukkamires (all northern quarter of Foula).

Table 1. Territorial Great Skuas in Foula (AOT) in early June 2022, in comparison with surveys in 2007 and 2015, collated for 20 standardised census plots as in use by NatureScot. The percentage difference between census results in 2015 and in 2022 is expressed as %change.

Sector	2007	2015	2022	%change	2022 Notes
A Ristie-Da Logat	48	39	45	+15%	
B Da Height - Stremness	85	117	49	-58%	
C Crougar - Ruscar	127	137	70	-49%	
D E of Da Lieug	3	6	3		
E Ham - Da Heoag	92	114	50	-56%	
F Gossameadow - Da Hamnastouis	90	86	55	-36%	Rapid decline in June
G Sandvatten - Gossameadow	50	45	28	-38%	
H North - South Harrier	1	3	0		
J Da Nedderafandal	149	211	83	-61%	Rapid decline in June
K+L Fleck lochs - Soberlie	170	149	91	-39%	Quite busy into July, fledglings in July
M Nebbifield, Waster Hoevda & Harnalie	124	128	36	-72%	Max 42, more likely 36!
N Ouvrafandal	77	51	48	-6%	Quite busy into July
P Da Sneug, Tounafield - Ufshins	193	217	68	>-69%	Poor data lower slope, low densities uphill
Q Hamnafield - Da Daal	237	317	75	-76%	First visit rather late, but much less than 2007
R Kirk area	4	0	3		
S Hamnabreck	11	20	1	-95%	Some more birds around, not clearly territorial
T N flank Da Noup	98	64	35	-45%	Poor weather during first visit
U Da Noup	33	18	n.d.	n.d.	In clouds during first visit
V E flank Da Noup	61	96	37	-61%	Poor weather during first visit
W Da Hametoon - South Ness	4	2	1		One of which HPAIV
Totals	**1657**	**1820**	**778**	**-57%***	**excluding sector U*

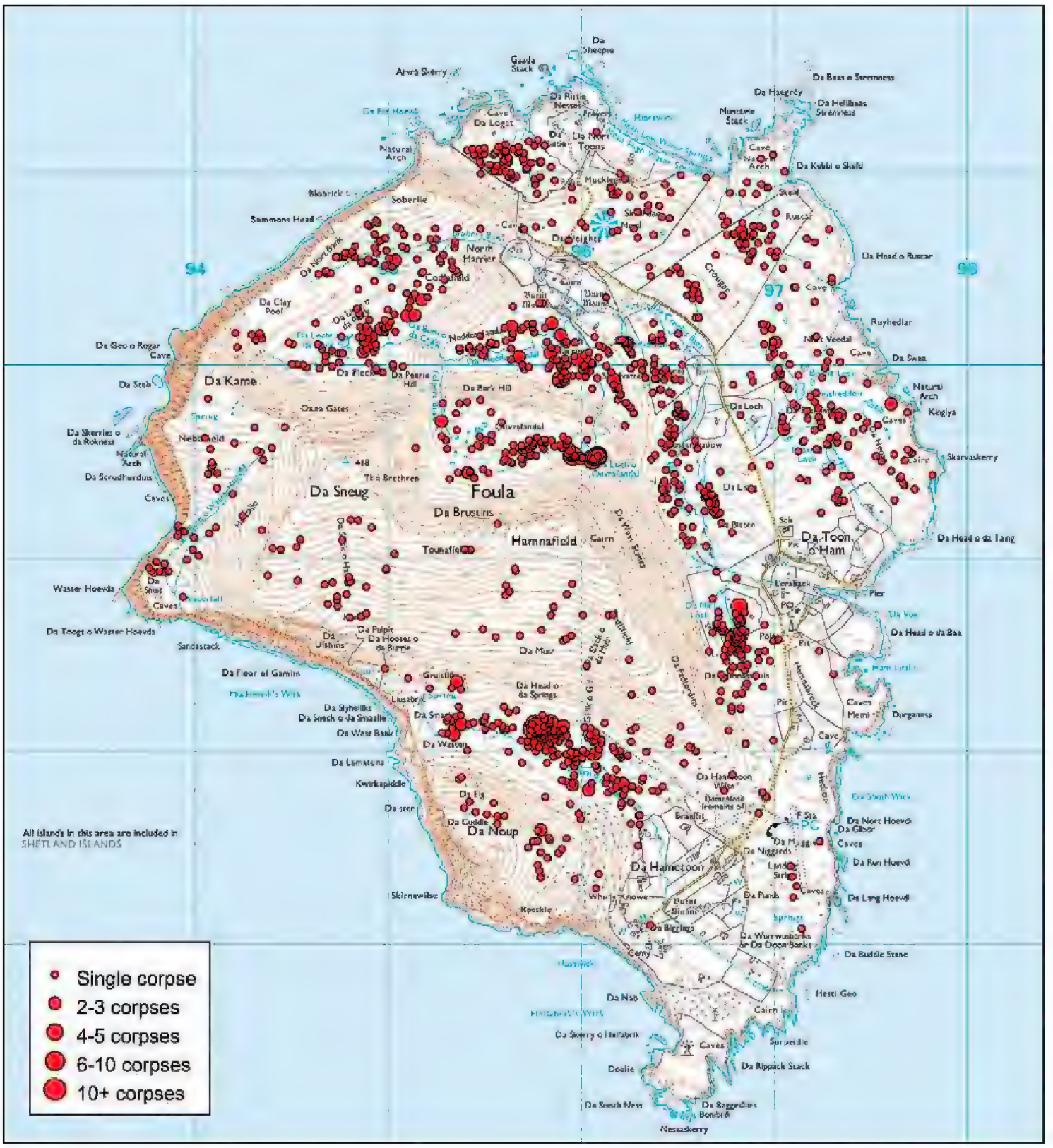
Colony counts of Great Skuas all over Foula (AOT) were conducted in the first two weeks of June, and results were compared with the two most recently conducted full censuses (2007 and 2015). AOT assessments were conducted following guidelines provided by Walsh *et al.* (1995), using a) nest, eggs, or chicks; b) apparently incubating or brooding adults; c) adults distracting or alarm-calling; and d) pairs or single birds in potential breeding habitat, apparently attached to the area, as indicators of a breeding attempt or territorial occupancy. Numbers were collated for 20 standardised census plots (Table 1) provided by NatureScot.

The reproductive performance of Great Skuas was assessed on two study plots: (1) at the long-term study plot at Da Bitten (just to the north of Mill Loch; annual contribution to SOTEAG ornithological monitoring programme; e.g. Miles & Mellor 2022), and (2) at a site between Ristie–Da Logat (N Foula). Da Bitten was studied during area visits, but with observations at distance instead of hands-on, and no ringing was conducted. At Ristie, eggs were measured (maximum length (L) and width (W) in mm, egg volume (cc) as kLW^2, with k = 0.00048, following Furness 1977), but otherwise eggs, chicks, and nests remained untouched. Nests were monitored every third or fourth day to assess hatching success, between early June and mid-July. Bushnell (DS-4K) camera traps were deployed at six nests with hatching eggs for up to four days, where single parents or pairs provisioned chicks, to get an impression of provision rates, chick care, and prey types. Fledging success was determined without entering the breeding territories, using observations at distance. The work was constantly and critically evaluated by the observers, for potentially adverse effects of their activities on the breeding birds.

Direct contact with sick or dead birds was avoided. Hands, tools, and anything that was close to dead birds was subsequently disinfected before re-use. Swab samples to detect infections with H5N1 were taken outdoors, with extensive personal protection in a team of two persons. Further measures and precautions were taken to avoid cross-contamination between breeding sites, between species, and between areas. Footwear and clothes were changed when apparently unaffected areas in Foula were visited, such as around the airfield where Arctic Skuas *Stercorarius parasiticus* and Arctic Terns *Sterna paradisaea* were nesting.

Results

The area searches produced exactly 1,400 documented corpses of Great Skuas, of which 100 individuals were ringed earlier in life. The distribution was non-homogeneous, with clusters of corpses in relatively wet areas (lochs, burns, swamps), known clubs and bathing sites (Fig. 1). Relatively few carcasses were scavenged by other birds (conspecifics included), and these were more frequently encountered at club sites and bathing places than on the territorial grounds. Ringed birds originated from Foula (87%), Fair Isle (7%), Fitful Head (3%), Hermaness (2%; all Shetland) and Westray (1%, Orkney; n= 100). Birds from Foula were usually ringed as chicks (84%, between 1986 and 2012), the rest as immatures (2%, 2001), and adults (14%, 2003–2010; n= 87). The mean age of ringed birds found dead was ~21 years for 87 individuals ringed at Foula and ~15 years for 13 individuals, ringed elsewhere, all as chicks, in Shetland or Orkney.


Da Kame
Da Sneug
Foula
Da Bruslins
Hamnafield
Da Toon o Ham
Da Hametoon
Da Noup
Da Sneug o Hamnafield
Da Watsen
Da Bark Hill
Da Loch
Da Head o Ruscar
Da Head o da Tang
Da Head o da Baa
Da Kubbi o Shaid
Da Geo o Rogar Cave
Da Clay Pool
Da Fleck
Da Perrie Hill
Da Skerries o da Rokness
Da Scrodhurdins Caves
Da Teagz o Wasser Hoevda
Da Floor of Gamlro
Da Stythellks
Da Smeck o da Sniaalla
Da West Bank
Da Lamatuns
Kwirkapiddle
Da Fig
Da Cuddle
Da Nab
Da Skeery o Halfabrik
Da Rippack Stack
Da Nigsteds
Da Plumb
Da Biggings
Da Wurrwusbanks or Da Doom Banks
Da Buddle Stane
Da Lang Hoevdi
Da Run Hoevdi
Da Gloor
Da Swaa
Da Loch
Da Lea
Da Vow
Da Vinnastuls
Da Bitten
Da Ruttle Nesses
Da Sheopie
Da Haagrey
Da Hellibass Stremness
Da Bass o Stremness
Da Logar
Da Nort Toons
Da Heights
Da Nort Burk
Da Clay Pool
Da Sneug o Hamnafield
Da Pulpit
Da Hooseas o da Burrie
Da Uthins
Da Muur
Da Head o da Springs
Da Hametoon Wirks
Da Nort Hoevdi
Da Gloor
Da Run Hoevdi
Da Lang Hoevdi
Da Buddle Stane
Da Nab
Da Skeery o Halfabrik
Da Rippack Stack
Da South Ness
Da Baggedlars
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Da Wurrwusbanks or Da Doom Banks
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Da Noup
Da Sneug
Foula
Da Bruslins
Hamnafield
Da Toon o Ham
Da Kubbi o Shaid
Da Head o Ruscar
Da Head o da Tang
Da Head o da Baa
Da Geo o Rogar Cave
Da Clay Pool
Da Fleck
Da Perrie Hill
Da Skerries o da Rokness
Da Scrodhurdins Caves
Da Teagz o Wasser Hoevda
Da Floor of Gamlro
Da Stythellks
Da Smeck o da Sniaalla
Da West Bank
Da Lamatuns
Kwirkapiddle
Da Fig
Da Cuddle
Da Nab
Da Skeery o Halfabrik
Da Rippack Stack
Da South Ness
Da Baggedlars
Da Wurrwusbanks or Da Doom Banks
Da Buddle Stane
Da Lang Hoevdi
Da Run Hoevdi
Da Gloor
Da Swaa
Da Loch
Da Lea
Da Vow
Da Vinnastuls
Da Bitten
Da Ruttle Nesses
Da Sheopie
Da Haagrey
Da Hellibass Stremness
Da Bass o Stremness
Da Logar
Da Nort Toons
Da Heights
Da Nort Burk
Da Clay Pool
Da Sneug o Hamnafield
Da Pulpit
Da Hooseas o da Burrie
Da Uthins
Da Muur
Da Head o da Springs
Da Hametoon Wirks
Da Nort Hoevdi
Da Gloor
Da Run Hoevdi
Da Lang Hoevdi
Da Buddle Stane
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Da Fig
Da Cuddle

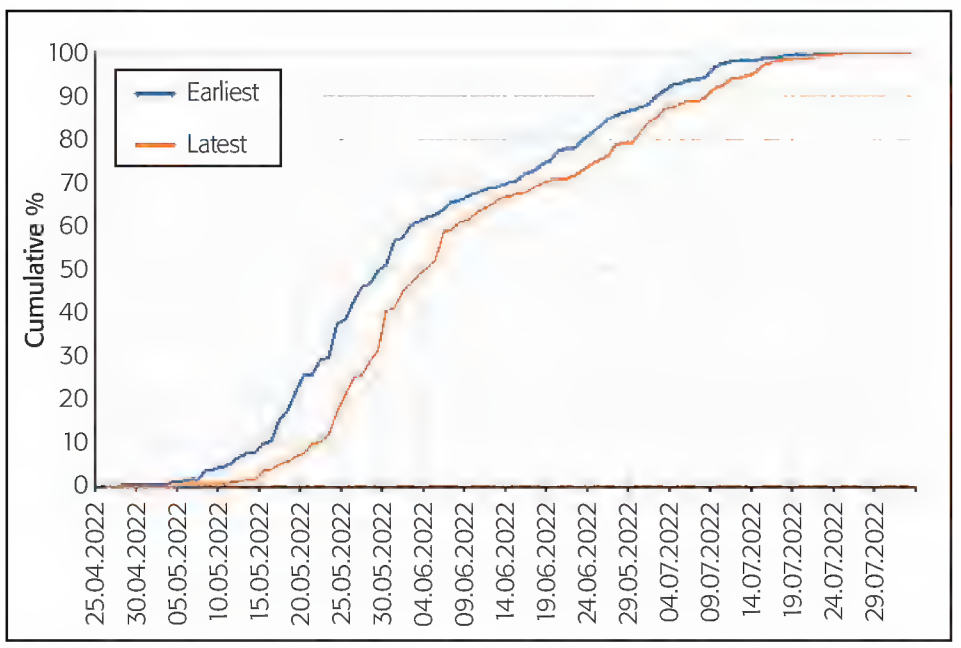

Figure 2. Great Skua mortality (n = 1,400, cumulative trend) based on corpses found all over Foula, 1 June–1 August 2022, using the condition of the corpses when found to estimate the date of death (see Appendix 1).

Back-calculations based on corpse decomposition indicated that the mortality had commenced early in May, accelerated and peaked in the second half of May and early June, then slowed down, but continued and even slightly picked up again later in the season (Fig. 2). Peak mortalities were first detected in mid-May at Da Fleck lochs, Mill Loch, Rossie's and Bottle lochs, and in The Daal, all major clubs and bathing sites of Great Skuas, but the mortality spread rapidly all over Foula, almost immediately after the first signals of infections, resulting in an almost complete overlap in the apparent timing of events between areas.

Dying Great Skuas typically stumbled around when disturbed, walked in circles without any co-ordination, tripped over their own feet, rolled over, crashed down soon after taking wing, or could be motionless with a head drooping down or swinging about. When they finally collapsed on their breast and died, such birds often had their head turned backwards over 'the shoulders', or with the bill pointing upright, the result of severe hyperextension and spasticity in head and neck (opisthotonos; Plate 227). Most fresh dead casualties were thus as frozen images displaying their final convulsions. We considered these highly characteristic behavioural aspects and postures to be circumstantial evidence that all birds suffered from avian influenza. The three birds sampled in July all tested positive for H5N1.

Plate 227a–b. Severe hyperextension and spasticity in head and neck (Opisthotonos), leading to typical postures of Great Skuas found dead, with heads swung over shoulders or bills pointing upright, as 'frozen spasms'. © *Kees Camphuysen*

Substantial declines in breeding numbers (AOT) in comparison with the 2015 census were found in all areas, but were most prominent in the southwest, where especially at higher altitudes rather few territorial skuas were found (sectors M, P, and Q; -69 to -76%; Table 1). Suggestions for strong declines at Da Noup (sectors T–V) were influenced by poor weather conditions during the survey. The rather large sector between The Kame, Da Fleck, Da Nort Bank, Codlafield and Soberlie (K–L,

-39%) remained relatively well-populated into July with fairly aggressive breeding birds and rather many visible and developing chicks all over. Only 24 AOT were found at the long-term study plot at Da Bitten, indicating a 42.5% decline. Overall, a 57% decline in AOT was found in Foula, in comparison with census results obtained in 2015 (Table 1). Given ongoing mortality throughout the summer, this is a conservative estimate, and a 60–70% decline (order of magnitude) in occupied territories is probably more realistic.

Clutch size across 34 AON at the Ristie–Da Logat study plot was 1.74 ± 0.4 eggs. Measured, normal-sized eggs (one dwarf egg excluded) were 70.5 ± 3.4 × 48.8 ± 1.5 mm (80.7 ± 6.4, range 65.6–93.5 cc in egg volume; n = 49). Considering the first well dried chicks, observed 8 June 2022, laying commenced around 8 May 2022, but continued at least until 10 June 2022. The timing of first egg-laying compares well with that on the long-term monitoring plot in Da Bitten, where the first hatchling was observed on 4 June 2022, suggesting a laying date of ~6 May 2022. Hatching success at Ristie was 62.9%, with on average 1.09 ± 0.91 hatchlings per nest (n = 33). Camera traps revealed that provisioning rates were high (predominantly fish and Rabbits), feeding trips were short and partners spent considerable time together at the nest site. Pairs in which one of the partners became infected and died failed promptly, and widowed individuals attending incubated eggs or small chicks were commonly seen all over Foula, often with the partner that died still near the nest.

During a visit of the Da Bitten monitoring plot on 29 July, there were no signs of surviving chicks and only two adults were present. The area, like most other breeding areas in Foula, had gone remarkably quiet in late June and early July. That activities of breeding birds were so much reduced was thought to relate at least in part to an early departure of the remaining breeding birds. Other, busier, parts of Foula all had easily visible chicks in the terrain in late July, including some near-fledglings, keeping at least part of the resident, territorial skuas occupied. At Ristie-Da Logat, only two partially feathered small chicks were detected on 3 August and remains of an almost fledged chick were found. Two dead near-fledglings were found on 24 August. The sightings show that some chicks reached the fledgling stage, but whether juveniles survived to actually leave Foula from this plot is not clear. Reproductive success must have been very low indeed, if not a complete failure. Visits in late August confirmed that a full breeding failure had occurred at Da Bitten. At that time, there were still small numbers of Great Skuas in Foula. In early September, with around 150 adults remaining on the island, one successful fledgling was observed at Codlafield.

Comparison of breeding results with other studies

Mean clutch size in the Ristie study area in 2022 (1.74) was almost the same as at Handa in the 2000s (1.73; Jones *et al.* 2008), but slightly lower than in Foula in the 1970s (1.90; Furness 1987) or in Fair Isle in the 1950s (1.86; Williamson 1957) or in Noss in the 1940s (1.95; Perry 1948) and 1980s (1.92; Hudson 1986). Laying dates in 2022 from 8 May to at least 10 June seem broadly similar to those in Foula in the 1970s (mean laying date 20 May) and at Handa (mean 26 May; Jones *et al.* 2008). Eggs in 2022 (mean 70.5 × 48.8 mm, averaging 80.7 ml) were smaller than reported for Foula in the 1970s when food availability was high and breeding success was high (mean 71.5 × 50.2, averaging 86.5 ml; Furness 1987), but only slightly smaller than a sample of 100 eggs from Scottish colonies (70.6 × 49.4, averaging 82.7 ml) reported in Witherby *et al.* (1941), and larger than the mean at Handa in the 2000s (77 ml; Jones *et al.* 2008). Hatching success in 2022 (63%) was slightly less than in Foula in the 1970s (70%; Furness 1987) in Noss in the 1940s (70%; Perry 1948) in Fair Isle in the 1950s (74%; Williamson 1957) or at Handa in the 2000s (80%; Jones *et al.* 2008).

Discussion

Protection from around 1900 onwards led to a prolonged increase in breeding numbers of Great Skuas at Foula, from 120 AOT in 1892 to 250 in 1938 (Venables & Venables 1955), 1,000 in 1958 (Perdeck 1960) and around 3,000 in the late 1970s (Furness 1983). However, numbers slowly declined from a peak of 3,180 AOT in 1977 to 2,670 in 1980, and 1,846 in 2015 (Furness 1983a,

JNCC 2022). The decline since 1977 is attributed to impacts of climate change (Oswald *et al.* 2008), the collapse of the sandeel stock at Shetland and to reduced discarding by the local trawl fishery, leading to food shortage (Votier *et al.* 2004, Church *et al.* 2018). Consistent with that, long-term annual monitoring data show a decline in average breeding success of Great Skuas at Foula from 1.1 chicks per pair in the 1970s to 0.8 in the 1980s and 1990s, 0.6 in the 2000s but only 0.2 in the 2010s. The extra mortality amongst Great Skuas in Foula, inflicted by the HPAIV H5N1 pandemic, led to a further 60–70% decline in breeding numbers in just one season. To put these data into some sort of context, the documented loss of at least 1,400 adults in 2022 and apparent reduction in AOT from 1,846 in 2017 to less than 800 in 2022 is equivalent to the population growth that occurred in the 70 years from 1890 to 1960.

In Western Europe, three species of colonial seabirds were disproportionally affected in early summer 2022: Gannets, Great Skuas, and Sandwich Terns *Thalasseus sandvicensis*. When Great Skuas returned to Foula in spring 2022, territories were occupied and breeding commenced just as in other years. The relatively smaller eggs found, in comparison with earlier studies, tend to correlate with lower survival of chicks (Furness 1983b, 1984), suggesting that breeding conditions in Foula in 2022 were probably less good than had been the case in Shetland in the 1940s–1980s and that the birds were slightly constrained in their breeding by food shortage. That is consistent with measured long-term changes in food availability and diet of Great Skuas at Foula (Votier *et al.* 2004, Church *et al.* 2018). However, the almost complete, and unprecedented, breeding failure of Great Skuas at Foula in 2022 does not seem to be predicted by the metrics compared above. The start of the breeding season, up to incubation at least, was relatively normal, while almost simultaneously with the onset of breeding the grim effects of the pandemic became increasingly prominent. It seems, therefore, that breeding failure in 2022 can be attributed to HPAIV infections rather than to breeding conditions being dramatically worse in 2022 than in other recent years.

Adults in Foula continued to defend their territories and bred until they became ill. Breeding birds died while incubating a clutch, or while actively engaged in chick care. That fit and healthy *mature* birds were primarily affected by the pandemic was also noted in Gannets, in which mass strandings of fat and heavy adult birds occurred in summer all over the North Sea (Camphuysen 2022). Gannets and Sandwich Terns also died in exceptional numbers during nesting attempts. So how did the virus spread, and when and where did the virus infect Great Skuas?

Over three decades, the ecology of HPAIV H5N1 has significantly changed from sporadic outbreaks in domestic poultry to persistent circulation in wild birds, now including colonial Atlantic seabirds (Sonnberg *et al.* 2013, STFAIWB 2022). Over the years, infections were detected in an increasingly wide range of species including wildfowl, waders, gulls, terns, cranes, grebes, herons, pelicans, gamebirds, corvids, raptors, mammals, and humans, indicating the potential for multiple and complex negative ecological impacts (Kaplan & Webby 2013, Huang *et al.* 2014, Wille *et al.* 2014, Lang *et al.* 2016, STFAIWB 2022, WHO 2022). LPAIV infections in seabirds have been known for longer (Wille *et al.* 2014, Lang *et al.* 2016), but contacts with highly pathogenic strains are from a considerably more recent date (>2019; WAHIS 2022). Perhaps for good reason, the scavenging and predatory habits of Great Skuas were immediately highlighted as an explanation of the infections during the outbreak of H5N1 in 2021 in Scottish populations (Banyard *et al.* 2022), but as a hypothesis and without investigations to confirm or reject the suggestion. In 2022, the pandemic spread quickly over a considerable variety of seabird species with very different attributes, foraging habits and ecologies, and with relatively few scavenging birds among them (Philip 2022). The history of HPAIV infections in wild birds suggests that fresh water reservoirs play a key role. Remains of H5N1 infected migratory birds are often found in the vicinity of (fresh) water sources, or wetlands, along migratory flyways (Roche *et al.* 2009, Kaplan & Webby 2013). In Anseriformes, the primary site of influenza virus replication is the intestine, with shedding of virus upon defecation (Webster *et al.* 1978). Highly pathogenic H5N1 viruses are

exceptional, because they can replicate in and be shed from the respiratory tract of infected birds (Kaplan & Webby 2013). Raptors and scavengers are highly susceptible to infection following predation or scavenging on infected poultry carcasses (Van Borm *et al.* 2005, Marinova-Petkova *et al.* 2012). Four forms of HPAIV transmission should therefore be considered: through virions present in (fresh) water, in the air (aerosols), through faeces excreted by infected birds, and as a result of the consumption of infected prey or carrion (predators, scavengers).

Great Skuas may have picked up the virus while scavenging at sea on dead (infected) Gannets, which could explain how isolated colonies all over their range (Scotland–Svalbard) became infected. Indeed, there is evidence that Gannet mortality was unusually high in April 2021 and so that may have led to the outbreak in Great Skuas in 2021 as well. That the virus spread so rapidly all over Foula (and other colonies) in 2022 and affected so many individuals in a short time span, however, must have been caused by conspecific transmissions and their sensitivity to the virus. All four forms of virus transmission listed earlier could have played a role at communal bathing places and clubs, the only sites where the birds socialise and form rather tight flocks on an almost daily basis (Plate 228). In the heyday of Great Skuas on Foula, a large proportion of the skuas at club sites were non-breeders (identified by their colour ring combinations). Between 1977 and the late 1980s; the number of non-breeders declined by 80%, breeders 'only' by 22% (Klomp & Furness 1992). With the breeding success at that time only 25% of the 'original' (earlier) average, it was predicted that the dramatic reduction in numbers of non-breeders would be followed by a rapid decline in recruitment, and a further and much faster drop in breeding numbers (Klomp & Furness 1992). With the ongoing population declines since then, the pool of non-breeders must be very small nowadays. Clubs and bathing sites in 2022 were therefore visited almost exclusively by breeding adults, that could pick up and spread the virus from these communal sites (Plate 229).

Plate 228. Great Skuas bathing and preening at Mill Loch, June 2018 © *Sue Furness*

Avian influenza leads to mass mortality of adult Great Skuas in Foula in summer 2022

Plate 229. Great Skuas bathing and preening and dead at Mill Loch, June 2022 © *Kees Camphuysen*

Influenza viruses deposited into the environment by wild birds may lead to further infections and mortality events (Ramey *et al.* 2022). Water-borne HPAIV transmissions were the main determinants of disease dynamics and observed prevalence levels in the Camargue (France), which highlights the importance of the persistence of viral particles in water to infect wild birds (Roche *et al.* 2009). Fresh-water bodies, or wetlands, may represent an important medium in which infectious influenza viruses reside outside of a biotic reservoir. There is little information regarding the persistence of infectious influenza viruses in the field at ambient temperatures, but in a study in one of the mildest climate zones in Alaska, some influenza A viruses remained viable for more than one year in the environment (Ramey *et al.* 2022). Considering communal bathing places as the primary sites where social contacts between skuas occur regularly, thereby facilitating all major pathways of virus infections, studies to assess the presence and the persistence of infectious influenza viruses in Foula's wetlands are particularly urgent.

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Appendix 1. Categories of Great Skua carcass decomposition were judged by eye, using the following descriptions based on birds of known date of death at Foula. The expected time since death occurred, shown in bold, was used to reconstruct the timing of the mortality. These categories may differ slightly at other colonies and among years depending on environmental conditions.

(1) dying birds,	Incapacitated birds with typical avian influenza spasms and incapable of flight or any other consistent fleeing modus. Assumed dead next day after finding (**-1 days dead**); dying birds were not wing-marked.
(2) very fresh,	Rigor mortis stage, often still glossy eyes, good looking carcasses that evidently just died. Assumed **0–3 days dead**.
(3) fresh,	Good looking carcasses, feathers bouncing and typically dry (when the carcass is on land), eyes dry out, very limited damaging insect activity visible, but attracting flies. Assumed **4–7 days dead**.
(4) rather fresh,	Fairly good-looking carcasses, feathers still bouncing, eyes dry, insects became interested, often the first maggots to be seen. Assumed **8–14 days dead**.
(5) rather old,	At least several weeks old carcasses, feather messy and or flattened, eyes deep dry, insects, slugs and mice usually have visibly done their work. Assumed **15–21 days dead**.
(6) old, and	Decomposing carcasses, feathers loosening, often damaged and twisted, insects lost interest. Assumed **22–28 days dead**.
(7) very old corpses	Dried remains, old carcasses, often disintegrated, or dried and mummified. Assumed **>one-month dead**.

Appendix 2. Filmed typical symptoms of sick and dying Great Skuas in Foula, summer 2022.

https://www.youtube.com/watch?v=vWIVL7oYJSM (Great Skua, Foula, CJC)
https://www.youtube.com/watch?v=3dth-KOcgGs (Great Skua, Foula, CJC)
https://www.youtube.com/watch?v=h7wGdFV41O0 (Great Skua, Foula, CJC)
https://www.youtube.com/watch?v=Gkuy8SxPeqk (Great Skua, Foula, CJC)

Probable Tree Sparrow x House Sparrow hybrids at Stoneykirk, Dumfries and Galloway during 2021–2022

Hybrids between House Sparrows *Passer domesticus* and Tree Sparrows *Passer montanus* have been reported in captivity (Summers-Smith 1963) and in the wild (e.g. Cordero 1990b, Summers-Smith 1992, 1995, Cordero & Summers-Smith 1993, Letho 1993 and Solberg & Ringsby 1996). Other instances are documented online. Both types of hybrid pairs have occurred: Tree Sparrow × House Sparrow and House Sparrow × Tree Sparrow. Offspring from mixed-parentages are often intermediate in plumage and are said to be viable.

A single Tree Sparrow was noted almost daily at Stoneykirk, Dumfries and Galloway from 9 April 2021 to the end of May and intermittently from 23 August 2021 to 30 December 2021. Two Tree Sparrows were noted on 31 December 2021, both of which were seen to the end of March 2022, with three photographed on 4 April 2022. From March 2021 to March 2022 House Sparrow numbers were variable, with peak numbers (164) seen during the post-breeding period. Two probable hybrids were noticed during early October 2021, their plumages evidently variable and intermediate between Tree and House Sparrows. No 'hybrids' were seen being fed by an adult Tree or House Sparrow at Stoneykirk. The birds were independent fledglings able to feed and look after themselves. Both hybrids were regularly observed to the end of the year. During January to March 2022 only one hybrid was seen in the garden.

Hybrid characteristics

The probable hybrid's overall jizz was more akin to House Sparrow. There was no noticeable difference in size. The main plumage characteristics suggesting hybridisation having occurred were:

- Neatness was more akin to a Tree Sparrow.
- Size of head and size and colour of the bill more House Sparrow-like than Tree Sparrow.
- Distinct dull grey- [brownish] wedge extending and tapering back from the forecrown as opposed to a full grey cap as in House Sparrow, i.e. reduced extent of grey on crown.
- The russet, vinaceous red-brown colour (as in Tree Sparrow) on the crown was far too rich for House Sparrow and the crown was less neat and rounded as in Tree Sparrow.

Plates 230–231. Tree Sparrow x House Sparrow hybrid, Stoneykirk, Dumfries and Galloway, 3 March 2022. *© Brian D. Henderson*

Plate 232. Tree Sparrow x House Sparrow hybrid, Stoneykirk, Dumfries and Galloway, 3 March 2022. © *Brian D. Henderson*

- A diffuse [indistinct in varying light levels], dark cheek patch/smudge was less distinct than the obvious big black cheek patch of Tree Sparrow.
- The whitish cheeks were not as white as in Tree Sparrow but were much paler than the dusky colouration of House Sparrow.
- [Partial] white collar broken at the nape (not evident in House Sparrow).
- Marginally larger black bib than Tree Sparrow.
- The distinctive black chest/breast markings of House Sparrow were not evident.
- Subtle black markings limited to the upper breast.
- Mixed buffy-off-whitish tones to the flanks, belly and vent as opposed to the uniform grey flanks, belly and vent of House Sparrow.

Tree and House Sparrows are both commensals of man. In view of the environmental preference of both species for built-up areas, it is not surprising that some interbreeding should occur. Hybridisation occurs more frequently in isolated areas where Tree Sparrows are scarce. Nearly three-quarters of hybrids come from areas in which one/or both species is/was uncommon (Summers-Smith 1995). The most likely hypothesis to account for the presence of the hybrids at Stoneykirk was the result of interbreeding due to mate restriction after a Tree Sparrow strayed into the range of the dominant House Sparrows.

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White-tailed Eagles at RSPB Loch Gruinart: a change in behaviour and use of the reserve

The RSPB reserve at Loch Gruinart is situated in the north-west of Islay on the west coast of Scotland. The reserve is on the shores of the sea loch and is designated for wintering Greenland Barnacle Geese *Branta leucopsis* and White-fronted Geese *Anser albifrons flavirostris*. During October the geese arrive in their thousands, flying down the north facing loch and resting on the tidal mud flats. When rested they gradually shift to feed on the adjacent Gruinart Flats, a reclaimed grassland, and other grassland habitats on the reserve. At peak the reserve can hold more than 25,000 Barnacle Geese and 700 White-fronts. As the winter months progress, the geese spread more thinly across the island, with approximately 5,000 using the reserve to feed and up to 15,000 roosting each evening. This goose spectacle has become popular with visiting bird watchers during the winter months. Over the last few years, visitors have also been entertained by the presence of hunting White-tailed Eagles *Haliaeetus albicilla* amongst the goose flocks.

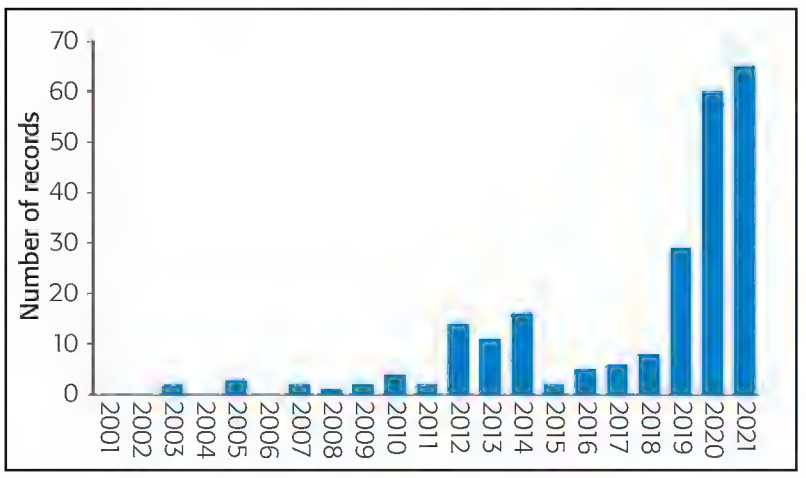

Figure 1. White-tailed Eagle sightings per year.

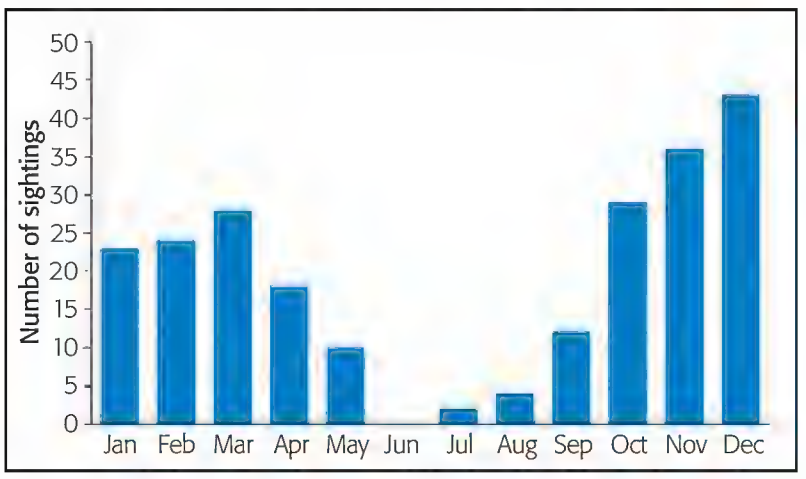

Figure 2. White-tailed Eagle sightings per month (2001–21).

White-tailed Eagles have been an occasional sight on the Loch Gruinart reserve since they were first re-introduced to the west coast of Scotland in the 1970s and 80s. For many years there were occasional sightings, usually single juvenile birds that hung around for a period of time, and, on a few occasions were noted to have hunted Barnacle Geese. In 2010 White-tailed Eagle breeding was first confirmed on Islay. With more local breeding birds the odd adult would join the juveniles turning up on the reserve. Then, in the spring of 2019, something changed and juvenile White-tailed Eagles started to regularly hunt the Barnacle Geese, with several birds using the reserve. This continued when the geese returned in autumn 2019, with eagle numbers and encounters increasing.

In an attempt to look at this change in behaviour and to quantify the way in which the eagles have changed the way they use the reserve, I decided to analyse the RSPB reserve records database. There have been no r standardised surveys of White-tailed Eagles using the reserve, however, birds seen are recorded by the wardens and entered as casual records. The search effort has been fairly constant and should show any change in the way the reserve is being used by eagles. For analysis, every sighting of one or more birds on any one day has been considered as a record, these records have then been totalled for each year 2001 to 2021 (Fig. 1). The records have also been totalled for each month, over the same time period, (Fig. 2).

In early 2019 the juvenile eagles started to regularly target geese as a food source. The graphs show how the eagles used the reserve more continuously for hunting from this point, the maximum number of eagles also increased with just one bird seen at any one time in 2018, rising to eight in 2021.

The eagles have been seen to hunt the geese by flying over, or watching from a distance, possibly to identify an injured or weaker goose. They then fly powerfully through the flock and chase down the targeted goose; sometimes this

Plate 233. A gathering of young eagles, Loch Gruinart, Islay, Argyll, January 2022. © *Phillip J. Edwards*

chase can cover long distances. The eagle usually catches the goose in mid-air, tipping the goose forward from behind and then catching the goose with its talons as it tumbles below the eagle. Some eagles become very adept at this method. Male eagles, being smaller and more agile, seem to be more successful. The goose is usually carried to the salt marsh or mud flats to be eaten and here other juvenile birds often move in on the feast. The goose is often thrown in the air and it appears that less experienced and younger eagles may use this as a training opportunity.

Gatherings of White-tailed Eagles often occur around an abundant food source. This is most usually fish as in the Oder delta in Poland (Re-Wild Europe 2018). White-tailed Eagles have also regularly been recorded taking geese as prey; they often hunt Greylag Geese *Anser anser* at Oostvaardersplassen in The Netherlands (van Rijn *et al.* 2010). What caused this change in behaviour at Loch Gruinart from occasional hunting to a regular gathering of eagles hunting geese is not clear. Increases in the number of juvenile eagles in the west coast population could explain increasing numbers of birds occurring on the reserve. From ring records at Loch Gruinart we know that birds arrive to hunt on the reserve from other areas in Scotland and are not just the result of an increase in the local population. Targeting Barnacle Geese may have been initially exacerbated by the Islay Goose Management Scheme's introduction of a goose cull on Islay. During the years 2016/17 and 2017/18, 3,000 geese were shot each season (ILGMG. 2022). It is possible that the high number of geese culled gave rise to greater numbers of injured birds in the population and this may have encouraged regular goose hunting by the eagles. Although no geese are culled within the reserve, they gather from the surrounding farmland to roost on the reserve each evening. It seems unlikely, however, that this is the ongoing reason for the continued gathering of eagles, as since 2018, the goose cull has been reduced to less than 1,000 geese per season (ILGMG. 2022).

Whatever the cause, this behaviour pattern does appear to be here to stay with a maximum count

of 17 birds together on the reserve already in 2022. In a way this seems like a redressing of the natural balance with an apex predator returning to the ecosystem. It will be interesting to see how the geese respond to the return of the eagles.

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Osprey taking Little Grebe

On 26 July 2022 cameras on the Osprey *Pandion halieatus* nest at Loch Garten picked up an unusual behaviour that had never before been witnessed at this nest. The female Osprey, known as Asha, after disappearing for a prolonged period, returned to the nest with a live Little Grebe *Tachybaptus ruficollis*. The main source of food at this nest is Brown Trout *Salmo trutta* brought in by the male osprey known as Axel. Normally the male would be responsible for providing all the food to the nest before the chicks have fledged and Ospreys' diet is predominantly made up of fish (Marquiss, Robinson & Tindal 2007). Asha began to eat the head of the grebe, but this was the only part of the bird that was consumed. The Osprey appeared to struggle with the plucking and almost none of the grebe was fed to the chicks. Asha ate most of the Little Grebe's head with a chick named 1C1 attempting to feed on it. However, this chick later died. It tested negative for Avian Flu but did appear to have an enlarged liver which suggests it was fighting an infection when it died. It is possible a pathogen had been passed to 1C1 from the grebe (RSPB Osprey Blog 2022). This event occurred after a few days when very few fish were brought to the nest by Axel, suggesting the female was desperate for food (Glutz von Blotzheim *et al.* 1971). Staff at the centre also suggested that Asha may have caught the Little Grebe while it was submerged, believing it to be a fish. In 2009 an Osprey was seen to catch a Great Crested Grebe *Podiceps cristatus* in a lake which it then dropped still alive; it later captured a fish (Watters 2009). In 2021, an Osprey was photographed killing a crow along the Potomac River, Virginia, USA (Virginia Audubon Society online).

Plate 234. Osprey with the grebe. © *RSPB Loch Garten*

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Stay Alive!

I climbed a low cliff and stationed myself on a bench that overlooks the Firth of Forth. From Kinghorn, the Fife coast and the coast of East Lothian appear to peel away from each other; on the horizon lies the North Sea. There are several islands out in the firth, and as usual, a number of ships were riding at anchor. The ships were connected to the oil industry; the Grangemouth refinery is a few miles upriver. How innocent they seemed, turning on the tide.

Last time I was here it was winter and I was watching humpback whales. This time I hardly dared lift the binoculars. That's never happened to me before: a reluctance to go to the coast and, once there, a reluctance to scan the waves. But twenty miles due east down the firth, stands the Bass Rock, the great mother, the biggest gannetry on Earth. The Bass is the plug of an ancient volcano. Nowadays, 150,000 gannets nest on its rocky flanks, and all over its plateau. So many gannets that the island gleams white with wings and guano. But today, even from this distance the colony looked depleted. More naked rock visible, fewer birds.

The Scottish gannet colonies are wonder-walls through spring and summer. I can rhyme them off: Noss and Hermaness, Sula Sgeir, Stac Li and Stac an Armin, Ailsa Craig. These ones are ancient. There are newish ones on the Aberdeenshire mainland at Troup Head, and on Westray, Orkney. There's only one colony in England, at Bempton cliffs in Yorkshire. Silent and elegant at sea, gannets make a racket in their colonies, with breeding pairs crammed bickering on nests wreathed with seaweed and plastic crap. It's a constant airlift as birds supply food and ever more nest material. If you walk on the cliff above, you get the updraft hit of ammonia, feathers and guttural argy-bargy. From below, on a boat, you can gaze up through layers of birds as they hang in cruciform shapes above you, like a fabulous mobile, giving you the cold blue eye. Actually, it looks hellish. Imagine being confined for months in an overcrowded parents and toddlers club, except when you slip out for a swift gin.

As well as gannetries, all around the summer coast are tenements of auks, gyres of puffins, tern colonies and the ever-patrolling bonxies, the great skuas - a piratical bird. 'Bonxie' is a Shetland name, now universally adopted. It suggests something of their tundra-brown weightiness, their gimlet eye. To eat, they harass other birds while they're flying, especially gannets, until the victim is so stressed it sicks up its dinner, which the bonxie swipes. They nest on open ground; stray too close, and the bonxie will drive you away by flying straight at the top of your head. (Once, on North Rona, my friend Stuart and I were walking along when a bonxie took exception to us. It came in fast, misjudged its height and walloped Stuart so hard it burst his eardrum.)

Plate 235. Bass Rock, Lothian, July 2022. © *Andrew Barker*

I could see the Bass on the horizon on the south edge of the firth. Further north lies the lower Isle of May, a mile long. I try to go to the May in May every year, to mark my birthday; a tourist boat sails daily from Anstruther throughout the season. Or ordinarily it does. In 2018, I went not in May but in late April, the week after my father had died. Visitors go for the abundance of birds, and the photo opportunities: the cliff-ledges stacked with rows and rows of auks, and the flighty terns, and the slovenly teenage-bedroom shags' nests. There are birds on the cliffs and puffins stand at their burrow doors on the turf above. I went out to the May this year to show the seabirds to a

Plate 236. Bass Rock, Lothian, June 2014. © *Stuart Murray*

young friend, a student of Arctic biology. Anna studies in Tromsø and had been on a research ship right up to the ice. She had witnessed polar bears hunting ringed seals, but she had never seen anything like the May. That was then.

Highly pathogenic avian influenza H5N1 is a known disease in poultry, but now it is scything through wild birds. Last winter it was on the Solway, killing migrant geese. This year it hit the Bass at peak breeding time. Drone footage by Edinburgh University and the Scottish Seabird Centre shows gannets lying dead on their nests, next to chicks and partners. They're hanging dead from the cliffs. They're floating dead on the water, a wreck of feathers. They're dead on the beaches, all down the coast. A friend on Shetland writes that they're dying there too. She sent a photograph of a dead gannet tangled in seaweed, its long neck twisted. 'The body of this gannet came ashore while I was on the beach, there were maybe five other dead gannets in this stretch of the coastline.'

It's not only the gannets. It's affecting gulls and guillemots. They're dying at St Abbs, just north of the border with England. Gannets may have some safety in numbers, and may weather the crisis, but in a recent podcast by the Scottish Ornithologists' Club, David Steel, the reserve manager for the Isle of May, says he fears a third of the world's bonxies may already be dead. It's possible that without constant pressure from skuas, other species like kittiwakes and petrels might have a better breeding year. There's just the lack of food to contend with, the plastic, the warming seas.

What's lovely about the Bass from a distance is the shaken snow-dome effect of so many gannets in flight, the coming and going and hanging in the air above, the dandruff-drift. Were there enough birds alive to create this summer spectacle now? When I dared to lift the binoculars I could see nothing at all - I hadn't reckoned with the heat haze. It was still warm, though temperatures were back down after the recent forty-degree heat when people watched their houses burn. When nature reserves went up in smoke.

It's been a while since we have been able turn to the natural world for reassurance, to map the arc of an individual life against the eternal cycle of the seasons, the birds, the hills. That's probably why I went out to the Isle of May when my dad died, looking for the old comforts. It was spring, life's resurgence, the seabirds' welcome return. But the feeling of being imperilled is now

constant: the sense that something is cracking like a parched field, the veneer of our hitherto secure lives. Temperatures climb, the world burns, ice melts, pandemics erupt, and now the seabirds are dying. There they are, the conservation workers, among their beloved birds at the height of the breeding season, wearing hazmat suits as they pile corpses into bin bags.

Where is this disease coming from? I asked Will Miles, a seabird ecologist living in Shetland, if this variant had spread from intensive poultry farms, the kinds of place that supply high street cheap chicken shacks? Is it another anthropogenic disaster? He counselled against such speculation, suggesting that the desire to find an 'origin' may be mistaken. The virus is now free-living, transmitting through natural processes, through the birds' life cycle. It's 'unprecedented, highly complex and extremely unpredictable', he said. It's horribly transmissible, by air and water, but the scariest thing is its persistence. It killed hundreds of bonxies on Shetland last year and Miles was glad to see the survivors leave at the season's end. But the disease broke out again as soon as the birds returned this spring: it had probably persisted all winter in the water of the freshwater lochans where the birds gather in social clubs. If the virus overwinters in other species' colonies, this year's disaster could just be the beginning. But there are so many unknowns: it affects different species differently, and the same species differently in different places. It can be deadly and widespread in one guillemot colony, and less so another. Unprecedented. How many times have we heard that word, these last few years? Unprecedented events, whether human-induced or not.

A few days ago NatureScot – what used to be known as Scottish Natural Heritage – issued a list of 23 small, uninhabited islands it is asking people not to visit, in an attempt to try and reduce the spread of avian influenza. It's a small gesture - the birds have myriad ways to spread the virus among themselves. Noss and the Isle of May were already closed to landing parties. In itself, the list is a lovely litany: it includes Swona and Muckle Skerry, Soay, Boreray, Ramna Stacks, Treshnish. Fidra and Lamb. 'Devastating', 'tragic', the press release says. Is that what the islands have come to mean, for the foreseeable future? The smell of death. The virus is on the Farne Islands, where it has killed at least 3,000 birds. It's on Coquet Island, off the Northumberland coast, laying waste to roseate terns. They are Europe's rarest nesting seabird; the only UK colony is on Coquet. Thanks to conservationists, they are recovering from near extinction, or they were. Terns live in perpetual daylight; some species migrate from high in the northern hemisphere down to the Antarctic. If they take the virus with them it could get into the albatross population, then spread to the penguins.

I have been talking about wild seabirds, but the flu has also turned up in lapwings, coots, peregrines. It's reached Svalbard, which holds huge seabird colonies. Anna, now working at a veterinary lab in Tromsø, says the anxiety in the far north is for arctic foxes, as well as the birds themselves.

From my Kinghorn bench, I faced the sea. What does the sea even mean? I suppose when I was young, and made journeys to Orkney and Shetland, and witnessed for the first time the swirl of innumerable seabirds and the Atlantic beyond, the sea stood for both vastness and security. 'You can't harm this', I wrote in an early poem, about the ocean. Oh how wrong.

The light glanced on the water. Hallelujah: a pennant of twenty-odd gannets passed, flying strongly, now rising, now falling. They would be Bass Rock birds. Plumes of water rose when a few folded their lovely black-tipped wings and plunge-dived. What use the summer sunlight, if it can't gleam on a gannet's back? It's possible we won't know the real extent of this catastrophe until next year at the earliest, or maybe several years from now, if and when it finally runs its course and surveyors can get into the colonies and conduct proper counts. Stay alive! I said to the gannets. I say it to geese, terns, every herring gull I see, raiding every bin. Stay alive! Stay alive! Stay alive!

Kathleen Jamie, Newburgh

This essay is reprinted verbatim by kind permission of the *London Review of Books*, where it first appeared on 18 August 2022. An SOC member, Kathleen Jamie became Scotland's 'Makar' (poet laureate) in 2021.

NEWS AND NOTICES

New members

Ayrshire: Mr & Mrs D. Allen, Mr J. Gilfillan, **Borders:** Mr K. Findlay, Mr A. Haddon, Ms O. McGarry, Mr D. Reid, Mrs S. Sapkota, **Caithness:** Mr S. Coyle, Miss J. De Ste Croix & Mr S. Morley, **Central Scotland:** Mr R. Fairley, Mr J. Knight, Miss K. O'Hara, Mr N. Roberts, Dr M. Sargeant, **Clyde:** Mr S. Nolan, Mr D. Porter, Mr A. Tye, **Dumfries:** Mr R. Purdie, Mr & Mrs K. White, **England, Wales & NI:** Mr & Mrs D. Lloyd Blake, Mrs P. Rutherford, Mrs H. Tucker, **Fife:** Miss J. Gula, Miss S. Ranscombe, **Highland:** Mrs A.O. Craig, Dr A. Melton, Mr & Mrs L. Round, **Lothian:** Mr B. Barbour, Mrs A. Black, Mrs C. Bloor, Mrs K. Brown, Ms J. Burnett, Mr I. Dixon, Mr P. Duncan, Ms E. Forsyth, Mr G. Franks, Mr A. Gilfillan, Miss K. Laurenson, Mr J.D. Moir, Dr A. Moorhead, Mr G. Morgan, Mrs S. Muir, Ms J. Neufeld, Mr S. Ramsay & family, Mr A. Robertson, Ms I. Rossi, Ms C. Smith & Mr I. Burnside, Miss C. Street, Dr D. Swann, Mrs R. Trotter, Mrs N. Verkroost, Ms F. Wilson, **Moray:** Mr K. Broadbent, **North-East Scotland:** Miss A. Brighten, Mrs F. Coutts, **Overseas:** Ms M. Fitzpatrick, Mr F. Ricchetti & Ms P. Golay, **Scotland - no branch:** Mr M. McQuade, **Tayside:** Miss C. Dougan, Mr B. Scott & family.

SOC Annual Report and Accounts 2021/22

This year's report is now available in PDF format via the SOC website: www.the-soc.org.uk/about-us/annual-report If you do not have internet access or would prefer to receive a printed copy of the report, please contact the office on 01875 871330.

Scottish Birdwatchers' Conference, 18 March 2023, Albert Halls, Stirling

Next year's spring conference will be hosted by BTO Scotland and SOC Central Scotland branch. Programme and booking information are enclosed. Details are also on the SOC website: www.the-soc.org.uk/get-involved/scottish-birdwatchers-conference (please note that BTO Scotland is handling the bookings for this event).

Waterston House update

Opening hours: Wednesday–Sunday 10:00–16:00 hrs (Christmas closing: 24 December–2 January). Please check the SOC website for any updates to opening hours and facilities available when planning your visit: www.the-soc.org.uk/about-us/getting-here-opening-hours Admin staff can be reached Monday to Friday 09.00–17:00 hrs and weekend staff 10:00–16:00 hrs on 01875 871330.

Art Exhibitions

Keith Brockie Showing until 15 January 2023. We are delighted to welcome back Keith Brockie for a solo show of recent work. Keith was born in Haddington. He graduated from Duncan of Jordanstone College of Art in Dundee in 1978 and, after a short period working as an illustrator for Dundee Museums and Art Galleries, he established himself as a freelance artist, specialising in wildlife. He lives and works in the village of Fearnan on the shores of Loch Tay.

Keith's work is widely praised for its depth of observation and feeling. As top art critic Duncan

Plate 237. Peter's pool, River Lyon. © *Keith Brockie*

Macmillan puts it: "*His study of a hare watched through a telescope is as beautiful as the hare itself, but it is not just a borrowed beauty, something appropriated, that we admire in his work….(it) is a record of something seen, certainly, but also of otherness understood and wondered at, of empathy, of seeing informed by feeling…To record and transmit real feeling can't be borrowed. It has to be your own, and if it is counterfeit, we soon spot that deception*".

In this exhibition, Keith presents studies of animals observed close to home, in Perthshire, over the past couple of years, as well as paintings of seabirds and waders created during more recent trips to the Isle of May and Aberlady Bay. In addition, the exhibition includes sketches and paintings of a female Osprey he was able to observe last year from a hide at a nest he had helped to build. Indeed, since 1982, he has contributed to the protection of the growing population of Ospreys in Perthshire through the building of artificial nests; protecting nests with the army, the police and RSPB staff; and ringing and tagging chicks.

Keith has produced eight books featuring his artwork, a film based on his experience on the Isle of May, and has travelled widely to participate in environmental awareness projects with organisations such as Artists for Nature Foundation.

Scottish Nature Photography Awards

16 January–26 February 2023. The Scottish Nature Photography Awards (SNPA) is an annual competition that celebrates Scotland as a destination for nature photographers and acknowledges the excellence of the photographic work undertaken in Scotland. The annual competition invites entries of images taken in Scotland by professional and amateur photographers from around the world. The competition awards a series of prizes, from the top one, 'Scottish Nature Photographer of the Year', to prizes in a range of categories, including a junior prize for photographers under 18 and a video prize. The resulting touring exhibition presents the winning entries in the various categories. It will be hosted at Waterston House for the second time since its inception in 2010. The SNPA is run and managed by Perspectives Partners N. & J. Irvine.

Art Online The SOC Online Art Shop continues to reflect the variety of art that is showcased in the gallery by offering a selection of work by past exhibitors. So, if you have missed recent exhibitions there is a good chance that you can still experience some of the artwork that was on show by heading online: https://www.the-soc.org.uk/online-shop

Branch Updates

New contacts in Moray - change of Chair: Martin Cook

Council thanks outgoing Chair, David Law, who stepped down after just over four years in the role. David managed the organisation of branch meetings very efficiently and is to be commended for steering the group through the difficult times associated with the pandemic. David is also a very influential member of the branch committee, with new ideas and suggestions, and so the committee is pleased that David is to continue as a committee member.

Martin is a founding member of the branch (Moray Bird Club) and a past secretary. He is well known to everyone through his recorder's role and the branch website www.birdsin-morayandnairn.org, which Martin created and manages.

Clyde bird recording - the end of an era

We were deeply saddened to receive the news of the passing on 16 October of long-standing Clyde Local Bird Recorder, Iain Gibson. Iain had been very ill for a number of years and was moved to a hospice just a few days before passing away, which happened peacefully. Iain served as recorder for some four decades as well as sitting on Council as the Clyde branch representative for many years. He had an outstanding knowledge of natural history of the Clyde area and, a mentor to many, he was always happy to share his knowledge with others. He will be greatly missed. A full appreciation will appear in the March 2023 issue of *Scottish Birds.*

Chance encounters on Hirta

SOC young birder and Council member, Hannah Lemon, was based out on St Kilda for six weeks during the summer, carrying out fieldwork monitoring for her day job (Lab Manager at

Plate 238. Sam Hood and Hannah Lemon, Hirta, Outer Hebrides, August 2022. © *unknown*

Edinburgh University, researching the gut microbiome of the wild Soay Sheep on St Kilda) when she spotted a Norwegian expedition cruise ship docked. This turned out to be the one that fellow SOC member, Sam Hood, was working on as ornithologist/guide. The friends, who first met on an SOC/Isle of May Young Birders' Training Course, managed to meet up while Sam was on the island for the day. In her note to HQ relaying details of the chance encounter, Hannah was keen to acknowledge the Club's role in helping her and Sam forge a career in ornithology: *"We both feel that the SOC has played a fundamental part in them ending up in our dream jobs. Just thought you guys would be excited to know that two young birders were able to meet up on the island on the edge of the world!"*

To read about Sam's journey to his dream job, see this year's Annual Report, available to view in PDF format on the SOC website (under the About Us tab).

Three Churrs for Nightjar in the Borders?

A new initiative by Borders branch members to uncover breeding evidence of the secretive and elusive Nightjar in the region has taken flight, and with it, hopes of boosting knowledge of the species and its recovery in the area.

The SOC Borders Branch Nightjar Project, a three-year study funded by a research grant from the Club's Endowment Fund, involves using audio recorders strategically placed near to where Nightjar have previously been recorded, in order to collect large amounts of data overnight for long periods of time. The devices are monitored for a number of weeks, with this summer yielding the first year's data and at a time when historical records suggest Nightjar numbers may be at their peak in the region.

With swathes of Nightjar-friendly habitat, and recurring records in 2020 of churring birds in similarly forested areas just over the border in Northumberland, it is widely believed that the Borders birds are being missed, leading to the species being worryingly under-recorded in this part of the country.

Motionless by day, often the only confirmation of a Nightjar's presence, and reliable indicator of probable breeding, is hearing the male's churring song. A nocturnal (crepuscular) species, Nightjar come alive at dawn and dusk within forested areas - a challenging environment to monitor, which makes getting an accurate handle on the population an equally difficult task. Prior to this summer, bird data for the Borders over the last decade reveal only nine Nightjar sightings.

Although the branch hasn't had the chance to fully analyse this year's data set, the group have been thrilled to share that their efforts have been successful; the bird's distinctive 'churr' has been recorded at three sites, showing that there were at least some Nightjar on territory within the region this summer.

Plate 239. From L–R: Alasdair Reid and Gavin Paterson with BBC Radio 'Out of Doors' presenter, Euan McIlwraith, July 2022. © *Gavin Paterson*

The birds (and branch members!) have even become media superstars, the project having been featured on BBC Scotland's 'Out of Doors' radio programme back in July.

For more information on the initiative, and to keep up to date with the project's progress, visit the SOC Borders Branch on Facebook: www.facebook.com/groups/socborders or contact Borders Branch Chair and Survey Co-ordinator, Dr Gavin Paterson at gavin.paterson@hotmail.co.uk

SOC podcast: Some Ornithological Chat

Launched in July, the Club's very own podcast, 'Some Ornithological Chat', sees SOC Birding and Science Officer, Mark Lewis, deliver a lively, meaty (but vegan friendly) chat with a different guest each month, blending conversations on topical issues and lighter chats about birds and birding. There are also hints and tips on identifying birds through their songs and calls. Guests so far include David Steel ('Steely') on avian flu and all things Isle of May, Sarah Harris on the Breeding Bird Survey, Scott Mayson dissecting the latest BirdTrack app, and Paul French on the work of the British Birds Rarities Committee.

You will find Some Ornithological Chat on the usual podcast platforms (Acast, Apple, Google Podcasts and Spotify) or visit www.the-soc.org.uk/content/get-involved/podcast

SOC app reaches milestone site views

The Club's award-winning free app *Where to Watch Birds in Scotland* https://www.the-soc.org.uk/about-us/app reached a substantial landmark by mid-October - one million site views! That's a million helpful little moments for bird enthusiasts in Scotland - directions, where to find a particular species, where to park, what time of year to visit. Or perhaps even just plain old inspiration for a day out somewhere new.

Since its launch in April 2019, birdwatchers in Scotland have used the app to help them find target species, mostly in spring, but with another peak in autumn too.

Used in combination with the Club's new birding calendar resource on the website www.the-soc.org.uk/get-involved/scotland-s-birding-calendar, you'll be able to find out exactly what to look out for this winter, where and when. The app also offers a few extra little bits of information such as species range maps and Scottish population estimates, as taken from the Club's 2007 publication, *The Birds of Scotland* (Forrester *et al.*). If you want to check whether anyone has seen your target species recently at any of the sites listed, just open up your chosen location and scroll to the bottom of the screen to see the latest sightings from BirdTrack.

Designed by birdwatchers, with content written by birdwatchers, for use by birdwatchers of all levels and interest - it's no wonder the app's been popular!

Wrap up for winter, SOC style...

At the time of writing, we have just received a shipment (from local supplier, Image Scotland) of new clothing branded with the SOC logo. Items have been selected based on their ethical criteria and with the colder months in mind. Choose from organic cotton plain sweatshirts and high-collar hooded sweatshirts, and long-sleeved T-shirts. As well as the traditional French navy, we're trying some new colours too! We still stock our popular navy beanie hats and baseball caps, as well as regular 'short-sleeved' T-shirts - for the hardy!

Visit the Shop page on the SOC website (under the About Us tab). To check availability, postage costs and to make a purchase, please call Waterston House on 01875 871330 (Wednesday–Friday 09:00–17:00 hrs; Saturday–Sunday 10:00–16:00 hrs).

...or go Central Branch mode!

Branch Committee member, Roger Stewart, has been working hard over the past few months to offer members a choice of garments bearing a dedicated Central Branch logo. Members can choose from a navy polo shirt, sweatshirt, and woolly bonnets (beanies). For prices, and to discuss placing an order, please give Roger a call on 07909 521021 or drop him an email: rjns@btinternet.com

Latest local bird reports

Dumfries and Galloway Bird Report 2020

Birds in Dumfries and Galloway (31, 2020) is available, priced at £10 (plus £2 UK p&p). The report is published by South West Scotland Environmental Information Centre on behalf of the Dumfries and Galloway Bird Report Working Group. To check availability and order a copy, please contact Peter Swann (pandmswan@ btinternet.com, Tel. 01556 502 144). Cheque should be made payable to 'SOC Dumfries and Galloway Branches' and sent to Peter Swann, 3 Robb Place, Castle Douglas DG7 1LW. Copies are also available to collect, by prior arrangement, from Peter or from Joan Howie (New Galloway, Tel. 01644 420 280), Brian Smith (Dalbeattie, Tel. 01556 620617) or Drew Davidson (Lockerbie, Tel. 01576 202591/07906 912558).

Orkney Bird Report 2021

Hot on the heels of its 2020 report, the Orkney Birds Records Committee has just published the 2021 Orkney Bird Report. Containing information on the resident breeding birds, as well as migrants and rare vagrants, the new report is available to purchase, priced at £10 (plus £2 UK p&p). For more information and to order a copy, please email: orkneybirdreport@hestily.co.uk

Vacancy: Schedule 1 Licensed Field Ornithologist

MacArthur Green, sponsor of this year's Young Birders Networking Session at the Club's Annual Conference, specialises in ornithology, ecology, hydrology and peat services, focussing on renewable energy projects and grid networks. The consultancy prides itself on its technical capability and pragmatic, problem-solving approach, and being a fun and friendly team!

You must have a passion for working outdoors in any weather and be confident working independently. Bird survey work involves early starts some days, and late finishes at other times, so you need to be flexible and enjoy variety in your working week. Site locations may frequently require surveyors to stay away during the week (accommodation and subsistence expenses will be provided). Field work will involve surveys for breeding raptor and other Schedule 1 species, breeding waders, Black Grouse, flight activity surveys with the potential to assist with other ecological surveys (bats, water quality monitoring and peat depth surveys). University qualifications are not necessary, but the ideal candidate must hold a current or recent Schedule 1 licence from NatureScot and have a minimum of two years' worth of relevant ornithology work experience monitoring Schedule 1 bird species. You must live within reasonable commuting distance of the Glasgow office in order to have access to the 4x4 and electric vehicles we provide to carry out survey work. For the full vacancy details and to apply, visit: www.macarthurgreen.com/vacancies

Plate 240. Professional field ornithogists at work. © *MacArthur Green*

Plate 241. Three young Barn Owls photographed, under licence, at one of the project's nest boxes, Clyde, August 2022. © *Zul Bhatia*

'Boxes for Barnies', SOC Clyde Branch - Project update, August 2022

During the winter of 2020/21, the Clyde Branch launched our Boxes for Barnies (hyperlink to: https://www.the-soc.org.uk/news/boxes-for-barnies) project - a collaborative effort funded by the local group and Garnock Connections Landscape Partnership (supported by a grant from the National Lottery Heritage Fund).

We worked with the Lochwinnoch community to construct and install nest boxes for breeding Barn Owl in the area, with the aim of boosting the species' recovery and numbers in the region.

The scope of the project had originally been to install 12 nest boxes (a mixture of ready-made, bought boxes and those constructed by volunteers), but due to the tremendous efforts

Plate 242. Three young Barn Owls photographed, under licence, at one of the project's nest boxes, August 2022. © *Zul Bhatia*

Plate 243. A young Barn Owl fledgling being ringed at one of the project nest boxes sites, Clyde, August 2022. © *Zul Bhatia*

of the nest box construction volunteers, and the ongoing demand from people wanting to have boxes put up on their properties, we managed to install an incredible 19 nest boxes - all in Renfrewshire, in areas identified as priority for the species. Boxes have been housed in a variety of locations, including farms and suitable private residences.

After an excellent Barn Owl breeding season in 2020, we had high hopes that a few of the project's boxes would be occupied in 2021. Unfortunately however, it was to prove a poor breeding year for the species, and only one box was used (box recipients had been made aware that it might take some time before their box was used).

Plate 244. A young Barn Owl being held by one of the box recipients after ringing at one of the project nest boxes sites, Clyde, August 2022. © *Zul Bhatia*

Plate 245. Young Barn Owl being held by their nest box hosts after ringing at one of the project nest boxes sites, Clyde, August 2022. © *Zul Bhatia*

Plate 246. One of the three recently fledged Barn Owls photographed, under licence, Clyde, August 2022. © *Zul Bhatia*

This year, however, we're delighted to report that three of the project's nest boxes have been used for breeding by Barn Owl (another was used by Jackdaw). Barn Owl populations are known to fluctuate widely, mainly in relation to prey availability, and we are hopeful that this local population will increase through the 'Boxes for Barnies' initiative.

All three boxes used by breeding Barn Owl this year fledged three young ('owlets') each. I filmed a clip of one nest box brood, from a respectful distance, which you can view on Twitter (https://twitter.com/ZulBhatia/status/1560026953637367809) - you don't need to have an account on the platform to watch the video. Individuals from Clyde Ringing Group ringed the owlets, with the utmost consideration for the birds' welfare.

Any Barn Owl sightings can be shared confidentially with me, Zul Bhatia, by emailing zulbhatia1@gmail.com. Records will also be added to the database of bird records for the Clyde area (maintained by the local Branch) and BirdTrack. Breeding season records will be hidden from public view. To find out who to report owl and other bird sightings in your area to, visit the Local Recorders' Network page on the Club's website (https://www.the-soc.org.uk/bird-recording/local-recorders-network).

Zul Bhatia,
'Boxes for Barnies' Project Lead
& Clyde Branch Chair.

SOC/BTO Scottish Bird Camp

This article is based on the Celebrating Scotland's first Bird Camp https://tinyurl.com/sta57wkv blog written by Steve Willis at BTO Scotland and published on the BTO website.

The Club was delighted to work in partnership with our friends at the British Trust for Ornithology (BTO) to lead the first ever Scottish Bird Camp - an exciting new initiative for young nature enthusiasts and the next generation of ornithologists. Both charities share a strong commitment to engaging and supporting young birdwatchers, and to creating opportunities for people to connect with birds, and with one another.

Camp took place on the first weekend of June, and saw 12 young people (many of whom had attended some of our online Youth Events sessions) aged between 10 and 15 years old, with various levels of birdwatching experience between them, excitedly gather at our East Lothian base. Once the Campers got settled in, we introduced the Camp Leaders and gave the participants an overview of what we had planned for the weekend.

Ben Darvill and Steve Willis from BTO Scotland then led a fun bird ID game, which put the group's team-working, bird identification and communication skills to the test – a great and laughter-filled way to break the ice and get to know one another – before the Campers retired to their dorms, fairly exhausted (us leaders too!) but excited about the weekend ahead.

Saturday morning was bright and sunny and we were lucky to be joined by local moth enthusiast and expert, Katty Baird. As 'catch more moths' was voted top of many of the participants' aims for the weekend, the sight of Katty carrying two traps laden with live specimens for the Campers to help process was almost too much excitement to bear!

In a post-Camp feedback survey, 100% of respondents* gave the experience 5/5 when asked if they had fun over the weekend.

There was a dazzling array of shapes and sizes (and disguises!). Poplar Hawk-moth and Buff-tip (the latter pictured below) proved big hits with the group. Cameras were out, as were sketch books, and even watercolours - a common sight throughout the weekend and wonderful to see.

Plate 247. Spot the Buff-tip! © *BTO*

Katty's session led nicely into a visit from renowned wildlife artist and regular Waterston House exhibitor, Darren Woodhead, who effortlessly and passionately engaged the group on all things arty, assisted by Ptolemy McKinnon, one of our volunteer Camp Leaders and SOC Youth Connect members.

"I loved chatting to him (Darren) and found him really inspiring"

Bird Camp participant

Darren brought with him all sorts of props (wings, feathers and sketchbooks) for his session and soon got the group making their own bird models. Imaginations were encouraged to run wild and the children's creations were soon flying all around the venue garden.

Afterwards, Pritt stick and paints were quickly packed away before the group boarded the minibus for a visit to a local nature reserve, for a peaceful walk in the woods, looking and listening for birds, led by Ben and Steve.

Survey respondents* gave Camp an average score of 4.2/5 when asked if they felt more confident in their birding skills having taken part over the weekend.

Plate 248. Darren shares his amazing portfolio of sketchbooks. © *BTO*

Chris Marais from BTO's Youth Team - also a qualified Mindfulness teacher - led a dedicated session. The whole group really got into this and hopefully it will be something we can each draw on again to help us find a moment of calm in amongst all the 'noise'.

After our packed lunches, we piled back in the minibus bound for Dunbar and East Lothian's famous landmark, the Bass Rock, courtesy of the team at Blue Wild, Nature Boat Tours www.bluewild.co.uk. We were met by our expert guide, the legendary Maggie Sheddan and Blue Wild owner, Alan Stewart, who fitted us for lifejackets and made sure we were safely kitted out for the trip. It was sunny with a little wind – perfect sailing conditions – and the fast and comfortable boat made quick work of the trip out to the world's largest single Northern Gannet colony.

Any seabird colony is an assault on all the senses and the Bass Rock didn't disappoint - the air full of swirling seabirds, the noisy rattling call of Gannets, and the unmistakable whiff of seabird guano. What a trip!

Plate 249. Maggie, our expert guide tells us all about the birds. © *BTO*

Plate 250. Returning from Bass Rock on the boat trip. © *BTO*

"I don't think I could choose just one thing that I enjoyed the most, but my top three were probably the boat trip, ringing and the nest finding!"

Bird Camp participant

Back on dry land at the venue, the young people were free to do their own thing whilst dinner was prepared. For some, that meant browsing Ben's enviable natural history book collection and Carol Miller's (volunteer Camp Leader and SOC Highland Branch Committee Member) fascinating collection of feathers and skulls from her time spent as a wildlife ranger, or helping Laura Baigrie (our Professional Youth Leader) set up the Kelly Kettle (a camping kettle and stove) ready to make hot chocolate. After dinner, we got some top tips on nest finding from Ben, and then, after a brief wander up the field to look for signs of Badgers, we went off to bed to get ready for Day 2.

It was an early start on Sunday morning as we drove over to meet up with volunteer Camp Leader and Clyde Branch Committee Member, Kevin Sinclair, and members of the Lothian Ringing Group, who kindly put on a bird ringing demonstration for the Campers at one of their Constant Effort Sites. Ringing was already underway when we arrived and we watched the ringers process and release a variety of woodland birds. The young people were shown the nets and how the birds are carefully extracted. Amazingly, each of the Campers was then given the opportunity to help release a bird - a privilege and a magical moment for anyone!

Plate 252. About to release a bird at the ringing demo. © *BTO*

"There were some really special experiences for him that he will always remember, he particularly liked the bird ringing and that is something that he wouldn't have been able to see without something like the Camp. I'm really pleased he held and released the Dunnock"

Parent of Bird Camp participant

Survey respondents* gave Camp an average score of 4.5/5 when asked if they felt closer to nature after participating in the event.

Plate 251. Watching the ringers carefully measure and process birds before fitting rings and releasing them. © *BTO*

After the ringing demo, we made our way down to Levenhall Links on the outskirts of Musselburgh, considered to be one of the best birdwatching sites in the Lothians, for a picnic lunch before enjoying some birding at the lagoons and off the sea wall, which overlooks the Forth estuary. As half the group did this, the other half joined local volunteer Colin Davison, for a nest-finding demonstration and a fascinating introduction to the fieldcraft used to find and monitor nests.

"This last week I have been busy exploring a local wild woodland and finding Wren nests (first time I have ever found one) and a Buzzard nest…which I have been spending many hours watching. Please give a huge thank you to Colin who led the nest finding - I loved it!"

Bird Camp participant

The group were shown the nests of Whitethroat, Song Thrush, and Linnet. Some of the young people even put their new-found skills to the test and found their own nests! The groups then swapped over and got a chance to try the other activity.

By mid-afternoon, we made our way back to the venue to get packed up and conclude an amazing weekend, but not before Ben and Steve helped present a few tales of what we'd seen, done, and learned to the participants' families who had joined us for a chat and a brief presentation of photos from the weekend.

"It was so thoughtfully organised, and Naomi loved all the experiences she had. She has just sent a letter off to one of the girls she met there, she's hoping they can meet up in the summer. Thank you so much for giving Naomi the opportunity to have this independent experience, doing something she loves, and to make some new friends along the way"

Parent of Bird Camp participant

Our thanks go to session leaders Katty, Darren, the crew at Blue Wild Nature Boat Tours, Lothian Ringing Group members and Colin Davison. All gave so generously of their time, energy and knowledge. Special thanks go to our volunteer Camp Leaders Carol and Ptolemy - who spent the full weekend with the group and helped in more ways than we have space to list here - and Kevin who kindly helped co-ordinate and supervise Sunday's activities. Thanks to Laura our Professional Youth Leader, the staff at SOC and Faye Vogley and Chris from BTO Youth Team for all their help and support throughout. Finally, a huge thank you to Ben and Steve at BTO Scotland who put an incredible amount of work into the preparation and delivery of Camp and were a constant source of support and inspiration throughout. Last but not least, thank you to our fabulous Campers (and Parents!) who were a fantastic bunch and participated so readily and wholeheartedly across Camp. We learned a lot from you!

Jane Allison, SOC Development Officer

We're delighted to confirm that the 2023 Scottish Bird Camp will be taking place in May/June next year. Look out for details in the March issue of Scottish Birds. *To subscribe to receive details of upcoming youth events, please join our dedicated mailing list http://eepurl.com/hFDYg5*

100% of survey respondents* would recommend Bird Camp to their friends!

* *At time of writing*

The 2022 Scottish Bird Camp was made possible by the generous support of Cameron Bespolka Trust https://www.cameronbespolka.com, the *British Birds* Charitable Trust https://tinyurl.com/282u2a6r and SOC Lothian Branch. Support was also given by the Aberbrothock Skea Charitable Trust, the Gillman Trusts and the Hugh Fraser Foundation.

Moffat Golden Eagle Festival 2022

The South of Scotland Golden Eagle project (SSGEP) aims to restore a viable population of Golden Eagles in the southern-most extreme of their UK range. Since the project began in 2017, we have seen the population increase from three breeding pairs to almost 40 Golden Eagles in southern skies. Over the last five years, 20 juvenile and seven sub-adult Golden Eagles have been translocated to boost the isolated and vulnerable population in the south of Scotland.

One of the strengths of the South of Scotland Golden Eagle Project is the strong support from local communities. The support the project has received from rural communities, farmers, landowners, gamekeepers, estates and countryside stakeholders, and the recognition of the eco-tourism benefits that accompany the presence of one of Scotland's most iconic wild species in the landscape, has been integral to the success of this ambitious venture and led to the delivery of Scotland's first 'Golden Eagle Festival'.

In 2021, Moffat became Scotland's first and only 'Eagle Town'. The successful 2021 Eagle Festival has been followed this September by a second festival which built on the successes of the previous year.

The aim of the festival is to raise awareness, engage the local community, and highlight the economic benefits that iconic species such as the Golden Eagle can offer to rural communities. In the past, visitors from the south of the UK would have typically driven straight to the Highlands and Islands in search of a hopeful sighting of a Golden Eagle. Now, the south of Scotland offers a very real and accessible chance of an encounter with these magnificent birds.

Leys Geddes, chairman of Visit Moffat, said the town was ideally situated to celebrate the return of the Eagle: *"The Moffat Hills are often described as mini-highlands, owing to our 300 km² of hills, outstanding scenery and rich wildlife, so the perfect area for Golden*

GOLDEN EAGLE
FREE FESTIVAL
16th-18th SEPTEMBER
MOFFAT
2022
TALKS · LIVE MUSIC · FOOD AND DRINK · SPORTS
FAMILY DAY · BIG CLIFF CLIMB · GUIDED WALKS
PLUS MANY MORE EXCLUSIVE OFFERS IN THE TOWN

Plate 253. Ray Lowden, Moffat, Borders 17 September 2022. © *Rick Taylor*

Eagles to thrive. It would be wonderful to ensure they become a regular sighting for visitors to the area".

An integral part of the projects work is engaging with the next generation of Eagle enthusiasts. With this in mind, a program of educational work was instated to ensure that future generations would be enthused, educated, and aware of this exciting addition to their natural heritage. 'Eagle Schools' has been rolled out across Southern Scotland and beyond, with primary schools being twinned with schools in Northern and Highland Scotland to share their eagle experiences. Moffat Primary named and adopted the first male eagle, Edward (C09,) who was released during the first translocation in 2018, and has now settled on territory in the vicinity. The students even recorded a song to welcome the young eagles to the Moffat Hills!

Moffat 2022 - A festival for Eagles ran between 16–18 September, and offered a wide range of events, activities, and entertainment for all ages. With guest speakers, guided walks, an enviro-day, live music, eagle-themed food and drink, arts and crafts, sporting events, educational workshops and a family fun-day, the festival engaged with a broad demographic to inform a wide audience of the importance of Golden Eagles in the southern landscape.

Visitors travelled from far and wide to enjoy and learn over the course of the three-day festival. From the south of England to the Highlands of Scotland, people flocked to Moffat, raising footfall in the town considerably, with reports from local hospitality providers confirming that most were fully booked throughout the festival, highlighting the important economic benefits to the local business community. So, what can visitors to the Moffat Golden Eagle Festival expect to find when they arrive?

This year's festival kicked off on Friday with a beginner-level raptor identification course at the Buccleuch Arms Hotel. The course aims to improve confidence in the recognition of birds of prey regularly encountered in the southern uplands, particularly how to discern a Buzzard from a Golden Eagle. The Buccleuch Arms, who promote motorcycle routes across the south of Scotland, are proud adoptees of 'Buccy', a young male eagle from the 2022 release. Owner Dave Smith, who commissioned a seven foot tall chainsaw carving of a Golden Eagle from multi-award winning Moffat chainsaw artist Peter Bowsher for the festival said: *"We are completely behind the Golden Eagle project and the Moffat Festival. We see the potential and our guests are very excited at the chance of an Eagle encounter! Our 'eagle routes' are increasingly popular and we are delighted to support Moffat's identity as an Eagle Town in every way we can".*

The day progressed with Borders Forest Trust leading a sold-out guided walk to the Devil's Beef Tub to introduce their ecological restoration of the area, after which Professor Anna Meredith delivered a fantastic talk entitled 'One health for people and nature'. The day culminated in a superb set of live music from 'Clan Blues', featuring the amazing slide guitar of Dave Dick, ex-wildlife crime officer, author, and raptor worker.

Saturday opened with the Enviro-Day, where the festival welcomed a variety of projects and organisations to Moffat Town Hall to promote the excellent work they undertake across the region. Tweed Valley Venison provided food, while Dark Sky Spirits offered samples of their Moffat Eagle Festival whisky. Ray Lowden from Kielder Bird of Prey Centre offered a close encounter of the bird kind at the Main Festival stage, wowing the gathered crowd with the chance to meet a falconry Golden Eagle. The festival atmosphere continued to grow as the Scottish Power Pipe band (ranked third in the world this year) took to the high street throughout the afternoon, followed by Cllr Lynne Davis addressing the crowd to thank everyone for all of their support.

After a short break it was back over to the Town Hall for two truly fabulous talks. Scotland's leading wildlife photographer, Laurie Campbell opened up proceeding with a remarkable talk about what he has gone through to photograph wild eagles. Wildlife cameraman and presenter Gordon Buchanan returned this year to deliver the key-note

Plate 254. Ray Lowden, Moffat, Borders 17 September 2022. © *Rick Taylor*

speech and presented a wonderful talk via the internet about his experiences with Golden Eagles and other wildlife encounters across the globe. After the talks, it was time for more live music at the Proudfoot Institute from The Djooks and Rick & Yiota, which was thoroughly enjoyed by all.

Hope Johnstone Park hosted the family fun day on Sunday, which offered a variety of activities for the whole family. There was the opportunity to climb to an eagle eyrie on Eagle crag climbing wall, wildlife themed activities, eagle-eye archery, food and drink, and even the chance to meet an alpaca as well as the return of Ray's Golden Eagle. In partnership with Hart Fell Running Club and Moffat Mountain Rescue, 'Eagle Hill' Fell Race left the Moffat Ram on the high street at 10:00 hrs for a gruelling 10.5 km route through the hills surrounding Moffat. The festival concluded with 'Eat with the Eagles', a Sunday lunch at Moffat House, followed by a presentation by the South of Scotland Golden Eagle Project. This was followed by live music in the bar to bring the Moffat 2022 Golden Eagle Festival to a close.

In addition to the festival events, Moffat Outdoors offered 10% off outdoor equipment during the festival with Whittles Publishing offering 20% off their wide range of wildlife books. Speaking after the festival, local resident and head of Moffat Promotions Idy Davidson said: *"The Moffat Eagle Festival is such a great event for the town; an event from which everyone benefits. Even putting the obvious economic benefits the festival brings aside, the return of eagles to the local hills coupled with the designation of Scotland's first and only Eagle Town has inspired a huge swell in community pride for their area and a real sense of ownership towards the Moffat eagles".*

The Moffat Eagle Festival will return in 2023, with provisional dates being 22–24 September 2023. Check out the project website for further news of the project, and sign up to our e-newsletter on the home page: www.goldeneaglessouthofscotland.co.uk

Rick Taylor,
South of Scotland Golden Eagle Project

Treecreepers on Ailsa Craig

On 27 August 2022, I was part of small group from Northern Ireland visiting Ailsa Craig in perfect weather conditions. During our four-hour stay, Sandra McDowell, spotted a Treecreeper feeding on insects in a derelict building on this treeless island. Sandra, a keen bird photographer, took a series of excellent shots of this apparently unusual sighting, and these clearly showed that the bird had been ringed.

On our return from Ailsa Craig I sent the photographs to Gareth Platt from Ballymena, who is an expert on ring reading. He used his skill, and

Plate 255. Treecreeper, Ailsa Craig, Ayrshire, 22 August 2022. © *Sandra McDowell*

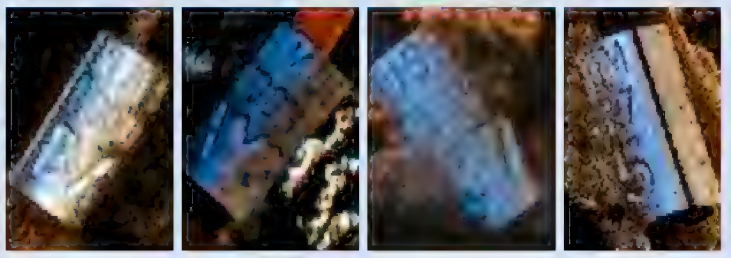

Plate 256. Details of the Treecreeper ring, Ailsa Craig, Ayrshire, 22 August 2022. © *Sandra McDowell*

an image enhancing programme on his computer, to piece together the lettering on the ring, which turned out to be BXY375. This information was forwarded to the BTO, who quickly confirmed that the Treecreeper had been ringed by Rab Morton at Aros Moss near Campbelltown on the Mull of Kintyre on 12 August. It was a juvenile, and had flown 40 km (25 miles) in an east/south easterly direction to reach Ailsa Craig.

I forwarded the BTO recovery slip to Bernard Zonfrillo from the Clyde Ringing Group, who regularly visits Ailsa Craig to ring seabirds. He responded that it is not unusual for post juvenile Treecreepers to disperse from their natal area, and he has recorded the species on the island on five or six occasions. He believes that the bird reached the end of the Mull of Kintyre peninsula and then headed east and stopped over on Ailsa on this crossing and continued on to the mainland.

Jim Wells

Photo-bomber

On the morning of 5 August 2022 on the Teviot near Roxburgh Castle I spotted a Kingfisher, unusually in the open, sitting on a rock on the other side of the river. I was just getting focussed in, when a face suddenly appeared from the reeds behind the bird then disappeared. Instinctively, I pressed the shutter, not knowing what I'd got until I checked the camera afterwards. It was a Stoat, contemplating lunch. The bird stayed around for a bit allowing me another couple of photos. What a bonkers few minutes!

Douglas Methven

Plate 257. Kingfisher with Stoat, Kelso, Borders, August 2022. © *Douglas Methven*

OBITUARIES

Maggie H. Dunn (1924–2022)

Margaret (Maggie) Dunn, who died peacefully aged 98 in Montrose House, Arran on 28 July 2022, was a founder member of the Arran Natural History Society in 1977. As the first ANHS bird recorder, Maggie produced the annual bird report between 1980–1991, and has contributed to it ever since. As a local teacher and member of the society, Maggie was an inspiration: through her boundless enthusiasm, many developed and shared her passion for the birds of Arran.

Plate 258. Maggie Dunn, Lochranza, July 2011. *© B. Zonfrillo*

Born Margaret Harper in Norfolk, Virginia, her family returned to Helensburgh in 1930, and at Hermitage Academy she met her future husband Alasdair Dunn. After school, Maggie trained as a primary teacher while Alasdair graduated from the Glasgow School of Art. They eventually settled at Kingscross on Arran where they raised their two children Linda and Malcolm, Maggie working as a primary teacher in Brodick while Alasdair became an art teacher and renowned potter.

As a staunch supporter of the SOC and its ideals, she contributed records particularly from Arran, took part in surveys, and assisted BZ and other visiting specialists at every opportunity.

Dedicated and enthusiastic, her passion for the beauty of Arran and its birds was clear and constant throughout her long life. When in 2020 JC was writing the book to mark the 40th year of the Arran bird report, it was to Maggie that he turned. Many a get together was had in her home in Whiting Bay, and in the nursing home talking about birds. JC listened as she drew on her vast experience, and there was such joy in these recollections. Her memory will linger with us forever. Maggie Dunn was our friend, and we miss her very much.

Bernie Zonfrillo, SOC Recorder for Clyde Islands & Jim Cassels, Bird Recorder Arran Natural History Society

Malcolm Porteous (1936–2022)

Malcolm Porteous was not a life-long birdwatcher. Indeed, he did not consider himself an expert, although he was much more knowledgeable than he let on. Nevertheless, Malcolm's indirect legacy to ornithology has been tremendous, launching a generation of young Edinburgh birdwatchers into a life-long love of birds, birding, wildlife and the natural world.

In 1970s Lothian, some of us then youngsters were discovering we had an interest in birds, but that our parents often lacked any real interest themselves. Individually we all somehow ended

up in the Edinburgh Young Ornithologists Club (YOC), the junior section of the RSPB, whether by finding it ourselves or, for some, the Edinburgh YOC actively finding *us*. We were welcomed into an enthusiastic group with lots going on. The driving force of the Edinburgh YOC Group was Malcolm, then headteacher at Bonnyrigg Primary School in Midlothian. He established a busy calendar of walks and events, through which we came to know in detail all the top bird sites around Edinburgh. Our group was one of dozens of YOC groups across Britain, but we felt our group was special. It was certainly one of the biggest in terms of membership. What we appreciated was that we were taken seriously. Malcolm, professionally a highly successful teacher, was never actively instructive about birds, never aloof. It was always us all, as a group of equals, discovering the birds together. Of special value was his wonderfully open approach to everyone. We were from a mix of backgrounds and different schools, and the shared experiences fostered some lifelong friendships amongst us.

Malcolm was keen that we learned to be useful, so we took part in counts and surveys, and we got to know a lot of the other active birders in the area. There were regular wildfowl counts at Linlithgow Loch, a regular co-ordinated Water of Leith survey and boat trips to many islands in the Firth of Forth to count seabirds. He was always looking for new ideas. One particularly memorable episode resulted from the idea of watching seabirds from Cramond Island over the duration of the high tide. Little did he know that a glamour photographer and his models would be there at the same time, and so he negotiated with them a way of dividing the island in two so our young eyes could be spared from being corrupted! On another occasion, he negotiated free passage for us to join the Edinburgh sewage disposal ship, the *MV Gardyloo*, on its trips from Leith to the outer limits of the Forth, a fragrant trip that afforded us great views of shearwaters and skuas as well as a variety of cetaceans.

Plate 259. Malcolm Porteous, Arthur Ransome Society tour naturalist, 2010. © *Hugh Porteous*

The Edinburgh YOC group was begun by Malcolm in 1974. At its peak there were around 200 members, with ages ranging between five and 18. Perennial favourites amongst the outings included the Yellowcraig to Aberlady walk and regular trips to Musselburgh Lagoons, during the time when ash disposal was still ongoing. Indoor meetings included talks from acknowledged experts, such as Dr Ian Newton, and a visit to the bird study room at the Chambers Street Museum. Activities became ever more varied, ranging from Beached Bird Surveys and helping the SSPCA with oiling incidents to assisting with bird ringing projects. Senior group outings often started with getting a lift to Macdonald Road to board an outdoor education minibus that Malcolm had commandeered. Malcolm was assisted by a number of other excellent leaders who all contributed to the success of the group. In 1978 he set up a Lothian Teachers Ornithological Group and he encouraged senior YOC members in leading outings themselves.

Malcolm delighted in meeting interesting characters, and quite often a birding trip would be interrupted so we could have a coffee with an author or artist. As we grew older, trips became more adventurous. For us youngsters growing up in the city, the chance to explore the high tops of the Cairngorms, sail to Hebridean islands, or head south of the border to visit the fabled nature reserves of East Anglia was truly mind-expanding. The confidence instilled soon led us to go on trips on our own, and Malcolm delighted in hearing of our adventures.

Malcolm also started travelling more widely, joining organised tours, particularly to Africa. As ever, his anecdotes were as much about people encountered as the birds seen. For him, birdwatching wasn't a solitary hobby. It was always something to be shared with others.

In later years, we went in different directions, but we continued to keep birds as a major part of our lives, ranging from work with the RSPB, nature reserves and bird observatory work to BTO survey work, bird ringing, and support of national records committees. Malcolm was always keen to hear of the progress of his protégés, and more than happy to provide advice when sought. In later years his regular Christmas cards, always by a respected bird artist, were a welcome reminder of our birdwatching apprenticeships.

Sincere condolences to Malcolm's family and also those who will have known him through his other great love, classical music. While he had little success in introducing a love of classical music to members of the YOC group, he supported a number of orchestras and had many successes, as musical arranger and conductor. He was highly appreciated as a great teacher by very many young people. In a moving coda to the memorial service held at Greyfriars Kirk in Edinburgh, Philip Higham, principal cellist of the Scottish Chamber Orchestra, brought together Malcolm's two great loves when he played the Catalan folk melody 'Song of the Birds'.

John Buchanan, Michael Gardner, Andrew Lyburn, Chris McGuigan, Kevin Ritchie and Paul Walton on behalf of the wider Edinburgh YOC Group alumni.

Ian Elfick (1942–2022)

Plate 260. Ian Elfick and Susan Horne (former SOC Librarian), Waterston House, October 2018. © *Wendy Hicks*

Ian was the headteacher of Graysmill Special School for 32 years. Taking children from three years right through to 18, it was such a happy and very well-respected provision for those children and their families. Ian began volunteering in the SOC Archives in 2008. Back then, recalls former SOC staff member and current Library volunteer, Jean Torrance, he would arrive on his motorbike in his leathers but would take off his biking boots and wear carpet slippers around the building! Since then, Ian would arrive more sedately, in his car. Most weeks, Ian would come in to work in the Archives, and we would have his quiet and enjoyable company in the library. He'd work through the cataloguing of new acquisitions and 'the boxes', now and then sharing an interesting find with staff on duty, and of course we'd have our regular morning cup of coffee and chat. The Archives that RF inherited on joining SOC staff as Librarian in 2019 are all neatly boxed and shelved. This, from information in *Scottish Bird News* and the Library Committee minutes, seems to have been largely due to Ian's efforts following the move to the Club's new headquarters in 2005.

Ian recorded all our archive material onto a database, catalogued and shelved the boxes, which then allowed the SOC's extensive ornithological material to be searchable, accessible, and opened up to researchers. Most recently, we worked together preparing the Archives for upload to the national online Archives Hub. Ian saw this project completed and the SOC Archives go 'live' earlier this year. It was his meticulous work in the cataloguing of the material that had made this major advance possible. Alongside this, we had built in succes-sional planning to future-proof the Archives database, never imagining it might be needed so soon. Ian was a very quiet, calm, and organised person who was able to focus completely on the archives but also was happy explaining things to others. Such an ordered mind was a great asset to the SOC. He and Alison were enthusiastic if inexpert birdwatchers and walkers. Ian was also active in Rotary, for example with the schools quiz and young musician programme. His passing was peaceful; his wife Alison found him in their garden where he had been tending to his Lily of the Valley. Our sympathies go to Alison, his children and grandchildren.

Rosie Filipiak (SOC Librarian) &
Karen Bidgood (former SOC Librarian)

BOOK REVIEWS

The book reviews published in *Scottish Birds* reflect the views of the named reviewers and not those of the SOC.

Biographies for Birdwatchers: The Lives of those Commemorated in Western Palearctic Bird Names.

Revised and expanded edition, Barbara and Richard Mearns, Dumfries, April 2022. ISBN 13: 978-0-9556739-3-1 (set). Two volumes, soft covers, 662 pages, over 250 portraits (30 in colour). Privately published, order via Wildside Books (wildsidebooks@hotmail.com Tel: +44 (0) 1323 416211), £69.99 + p&p.

The first edition of this book was published as a single volume hardback in 1988. Since then, much new information and more pictures have come to light. In addition, there have been quite a few changes to the Western Palearctic bird list. This updated, fully revised edition now comprises two substantial A4 paperback volumes in a card slip case and has been further expanded to include species that occur in the Arabian Peninsula, Iran and parts of Central Asia. The first volume (396 pages) concerns 163 people who have a full species named after them; the second volume (266 pages), 179 with sub-specific eponyms.

We have come to expect the Mearns's gift for writing and scholarship and this edition maintains their extremely high standards. Within it can be found fascinating accounts of many well-known figures as well as those of lesser-known people, all of whom make for very interesting reading. An invaluable, detailed bibliography with notes for each author featured is provided in a long section at the end.

I cannot praise this remarkable work too highly. Even if you have the first edition, this new edition more than merits a place on your bookshelf. Either way, you have a treat in store.

David Clugston

After They're Gone. Extinctions, Past, Present and Future

Peter Marren, May 2022. Hodder and Stoughton, London. ISBN 9781 529 393 408. 303 pages, hardback, £16.99.

The title and subtitle of this book could hardly be more ominous. Its author, Peter Marren (a Fellow of the Linnean Society), considers mankind as having entered a new level of

extinctions, the man-induced Anthropocene. It follows previous mass extinctions, the most recent being the Cretaceous which is known especially for the extinction of the dinosaurs.

The author laces his text with personal local contemporary examples of decline. For example, the loss of snow on the Cairngorms earlier in the spring playing havoc with the ecosystem, which is likely to have long-term effects on our montane fauna and flora. Equally sadly, he records that the Nightingales he could hear from his house in a Wiltshire village twenty years ago can be heard no more. He remarks that England is said to be one of the most nature-depleted countries in the world. We can surely add Scotland to that. This is a most absorbing, worthwhile book, written as ever with Marren's usual wit, insight, compassion and wide-ranging knowledge. It is required reading for every politician, and all who are concerned with our future in the natural world.

S. Mullay

New Books also received in the George Waterston Library

Birds and Us: A 12,000 Year History, from Cave Art to Conservation. Tim Birkhead, 2022. Penguin Books Ltd. ISBN 9780241460498, hardback, 464 pages, £25.00.

A Scottish Wildlife Odyssey: in search of Scotland's wild secrets. Keith Broomfield, 2022, Tippermuir Books Ltd. ISBN 9781913836139, paperback, 206 pages, £9.99.

How Birds Live Together. Marianne Taylor, 2022. Princeton University Press. ISBN 978-0-691-23190-7, hardback, 224 pages, £25.00.

Best Days with Shetland's Birds. Andrew Harrop and Rebecca Nason (Eds.), 2022. The Shetland Times Ltd. ISBN 9781910997475, paperback, 134 pages, £17.99.

The Corncrake. Frank Rennie, 2022. Whittles Publishing Ltd. ISBN 978-1-84995-502-7, paperback, 181 pages, £18.99.

The Tawny Owl. Jeff R. Martin, 2022. Bloomsbury Publishing. ISBN 978-1472980694, paperback, 304 pages, £35.00.

RSPB Pocket Guide to British Birds. Marianne Taylor and Stephen Message, 2022. Bloomsbury Publishing. ISBN 9781472994721, paperback, 272 pages, £7.99.

Bho Bheul An Eòin - From The Bird's Mouth. Ruairidh MacDhonnchaidh and Derek Robertson, 2022. Woodlands Studios. ISBN 978-0-9539324-5-0, paperback, 91 pages, £15.99.

RSPB ID Spotlight - Ducks, Geese and Swans. Marianne Taylor and Stephen Message, 2022. Bloomsbury Publishing. ISBN 9781399403696, foldout book, £4.50.

RSPB ID Spotlight - Garden Bugs. Marianne Taylor and Richard Lewington, 2022. Bloomsbury Publishing. ISBN 9781399403689, foldout book, £4.50.

Where to watch birds in Wales (5th Edn). David Saunders & Jon Green, 2022. Bloomsbury Publishing. ISBN 9781472979513, paperback, 384 pages, £25.00.

Birds of Sri Lanka. Deepal Warakagoda, Uditha Hettige and Himesha Warakagoda, 2022. Bloomsbury Publishing. ISBN 9781472966476, paperback, 144 pages, £16.99.

Birds of the Lesser Antilles. Ryan Chenery, 2022. Bloomsbury Publishing. ISBN 9781472989611, paperback, 224 pages, £16.99.

Birds of South Africa. Adam Riley, 2022. Bloomsbury Publishing. ISBN 9781472990808, paperback, 224 pages, £16.99.

The George Waterston Library is open for browsing and borrowing during Waterston House opening hours (check SOC website). Books can either be borrowed directly or can be posted out (UK only, conditions and p&p charges apply) by emailing the Librarian: Library@the-soc.org.uk

The Edinburgh Bird Bulletin

The SOC Library has multiple, duplicate, back issues of 'The Edinburgh Bird Bulletin' which was published for the Edinburgh Branch of the SOC. We have surplus copies of most of the volumes and issues if anyone would like them. If you are interested, or wish further details, please email the Librarian at: Library@the-soc.org.uk.

OBSERVATORIES' ROUNDUP

Observatories' Roundup is a regular bi-annual feature about our bird observatories in Scotland. The intention is to publicise the work of the observatories, visiting opportunities, as well as incidental snippets of news from the islands.

Fair Isle Bird Observatory

Rebuild update

The work to rebuild the new Obs is continuing and is, at present, still scheduled to reopen to guests in spring 2023.

Fair Isle presents at the best of times a challenging and logistically difficult environment for any building project let alone one the size of the new Obs. Add in the numerous worldwide pressures that are affecting us all individually and collectively and it simply compounds matters even further. Notwithstanding all these external accentuating factors, we have managed, so far, to keep to the timetable of building the Obs on Fair Isle this year - although the timing of when we are able to recruit new permanent staff and open for bookings has slipped.

Presently, the modular build units have all been completed in the factory in Sheffield and shipped to Orkney from Grimsby. The programme is then that a barge transports these to Fair Isle in four trips whereupon the modules are then are then all put together with the roof and outside cladding then being attached. Although most of the work has already been completed, the bedrooms for instance come already painted, carpeted and fully fitted with their bathroom. There is still considerable work to be done connecting matters such as the electrics, plumbing etc which means the fit out will take several months.

Plate 261. The modules under construction, Sheffield, South Yorkshire, 16 August 2022. © *Ian Cowgill*

We have reached the point in the project where we can see the tangible results of several years endeavours by a great number of people: in particular, on a voluntary basis, that of the Directors of FIBOT. Our reopening in 2023 will allow us to look forward to a new era in the history of the Obs.

Bird news - August to September 2022

With October still to come, the autumn of 2022 has so far been a productive one for migration through Fair Isle.

August got off to a typically slow start, but migration started kicking into gear from mid-month with common migrants beginning to trickle through, along with the first Barred, Icterine and Wood Warblers, Wrynecks and Red-backed Shrike to add some excitement on the scarcities front. A Melodious Warbler was the standout highlight - still a rare bird up here, though on the increase. Wader movement was evident through the month, with Spotted Redshank and Grey Plover being valuable additions to the year list, as well as good numbers of Black-tailed Godwit and Ruff making use of the cut silage fields on their way southwards. An early pulse of strong south-easterly winds also delivered a Great Snipe, the first here since 2017, which sadly could not be relocated after the initial sighting. Little did we know then that there'd be plenty more Great Snipe sightings to come! An Arctic Warbler made an appearance on the classic date of 30 August (almost a guaranteed species here in the last week of August). Arriving on the same day was a Blyth's Reed Warbler, to round off the month nicely amid a flurry of other common and scarce migrants.

Plate 262. Long-billed Dowitcher, Fair Isle, 22 September 2022. © *Alex Penn*

September is one of the best months to be on the isle (a subject that can cause endless debate) with migration getting into full flow, and later in the month, the chance of one of the Fair Isle 'classics' from far to the east. This year it has certainly delivered, with easterly airflow early in the month bringing good numbers of common migrants, particularly Redstarts, Tree Pipits and Whinchats, as well as an impressive arrival of small raptors, with a day total of 17 Sparrowhawks on 4th being a record count for the isle. A small irruption of Great Spotted Woodpeckers across the Northern Isles was represented here from 3 September - few species look more out of place here than these, with birds climbing cliffs, stone dykes and fenceposts, even appearing on the concrete buildings around the highest point of the island. Rarities in the early part of the month came in the form of a second Great Snipe (also proving to be untwitchable), as well as a skulking Paddyfield Warbler in the Walli Burn, the isle's 26th record and the earliest ever autumn occurrence.

An early Olive-backed Pipit, Turtle Dove and Wryneck followed, and a change in the wind direction on 9th brought a large fall of common migrants, with Willow Warblers at the fore. This proved to be a classic exciting September day on Fair Isle, with birds lifting from everywhere you turned, headlined by two Great Snipe flushed together that morning (rising to three the next day!) and a Lanceolated Warbler found in the afternoon, which went on to show extremely well along a stone wall, much to the delight of its appreciative observers. The first Yellow-browed Warbler of the autumn appeared on 10th, and Lapland Bunting on 15th, both signs of the autumn moving on a stage. A quieter spell lasted until 20th, when light southerlies delivered a new Arctic Warbler, Rose-coloured Starling, Bluethroat and the autumn's first significant count of Yellow-browed Warblers, with 18 scattered across the isle. The following day produced the isle's third record of Long-billed Dowitcher, with a confiding juvenile found at the south end of the isle. It went on to stay for four days and at times affording excellent views - one of the highlights of the autumn thus far.

Strong westerly-based winds put the brakes on migration until the 27th, when a change to light easterly airflow brought about an exciting spell of arrivals at the end of the month. The isle's first Pallas's Grasshopper Warbler since 2017 was trapped at Quoy, going on to remain there and occasionally show very well to lucky observers. A typically confiding Hornemann's Arctic Redpoll was discovered the same day (part of a small arrival of the taxon across the northern isles after north-westerly winds) and the 29th saw a brilliant day of migration, with a cracking Red-flanked Bluetail swiftly followed by the discovery of the isle's tenth Radde's Warbler at the School. A further arrival of Great Spotted Woodpeckers, making mincemeat of the isle's fenceposts, coupled with the spectacle of Yellow-browed Warblers and Goldcrests dropping in and a scattering of other common and scarce migrants made for a very exciting day's birding.

With October now looming, what else is still to come for us this autumn?

Douglas Barr, Chair of the Fair Isle Bird Observatory Trust.

Alex Penn (Acting Warden, FIBO), Fair Isle, Shetland ZE2 9JU.
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Isle of May Bird Observatory

"Spring migration is just not what it was", a phrase often coined by many birders, and this year proved, yet again, to be a quiet one. Weather patterns from early April followed those of the previous spring. Cool northerly airflows dominated and often blocked north-bound migration. As a result, common migrants were thin on the ground. Throughout the spring, low figure counts for the majority of species were the norm, and some failed to appear at all, including Grasshopper Warbler.

During the late winter, reserve and research staff visited the island sporadically and a few noteworthy records were obtained. A Black Guillemot was on the sea off the Low light on 9 January, whilst Ravens were again noted, with two on 7 February. These birds were probably the same pair seen frequenting the west cliffs the previous autumn. It raises questions as to whether these birds may colonise the island in the future as coastal numbers increase. Other typical noteworthy records during the late winter period included a first-winter Glaucous Gull south on 14 March.

NatureScot staff returned to the island from 21 March and daily recording commenced from then on. The Obs opened from 16 April. Although April was generally quiet with the typical arrival of the first summer migrants of the year, a male Hawfinch was found on the Fluke Street bird table and remained for two days on 13th–14th. Although this was the 15th island record, it was the eighth in the last six years and a trend mirrored at other east coast migration stations in recent years. Other April highlights included single Ospreys, north, on 4th and 6th, 1–2 Short-eared owls early in the month and a Long-eared Owl photographed on 18th. A Green Sandpiper on 25–26 April on the South Plateau was a scarce spring record for the species.

The month of May is *the* month in the spring migration calendar, but like all migration, it relies on the right weather. After a mundane opening two weeks with the only highlight being a heavily moulting Hooded Crow for two days, the island eventually witnessed an easterly airflow which started mid-month and did not disappoint. The start of this purple patch saw an adult Honey Buzzard drift west, only the 11th island record and first spring bird since 1993. A few days later the jackpot came with good numbers of common migrants arriving over the 16th–18th. This included peaks of 40 Willow Warblers, 8 Chiffchaffs, 14 Sedge Warblers, 3 Blackcap, 5 Garden Warblers, 2 Lesser Whitethroats and 20 Common Whitethroats, amongst others. It was no surprise that the bird of the spring was found during this spell. A stonking male Rustic Bunting, discovered near the water tank bushes at the low light, was later caught and ringed. The bird was the 15th island record (involving 18 individuals) and comes hot on the heels of the previous bird seen on 21–22 May 2021. The other noteworthy bird during this spell was a female Bluethroat, our bird Obs logo, favouring a gully near Altarstanes, on 16 May.

However, the excitement of this spell of easterly winds was short lived, the weather patterns returned to a more westerly dominated flow and quieter times. Arguably, the most bizarre event of the avian year occurred in late May though, as an adult Ring-necked Parakeet was discovered coming in-off the sea on 21st. This would have constituted a 'first' for the island of this spreading, introduced, species, but the joy was short lived. On the second day of its stay the bird was discovered sitting on a wall at Fluke Street and took a liking to being hand-fed grapes, eventually preferring to sit on the shoulders of the bemused residents on the island, pirate style! As later discovered, the bird had escaped from captivity in Glenrothes and was soon reunited with its rightful owner, ending a very bemusing and bizarre record for the Isle of May. Needless to say, a few folk had to remove the species from their island lists once the true nature of the bird had been discovered!

As early June arrived, it appeared the end of spring passage was in sight and that the island had experienced another slow spring. However, you can never underestimate or write off the Isle of May, and early June provided a final sting in the tail. Winds switched to the south-east on the 8th and a small flurry of migrants arrived late that day. A fine Icterine Warbler found the Top trap and soon after a belting male Bluethroat was at the base of the main

lighthouse. The following day provided arguably the best birding day of the spring as the male Bluethroat was still present but was singing from nearby Elder bushes. Whilst this spectacle drew the crowds, the Icterine Warbler was present for a second day, a female Red-backed Shrike was found by the Low Light and a Cuckoo flew north. It proved to be the last hurrah of the spring, but was certainly well enjoyed by those present. The rest of June fell into a typical mid-summer slumber with a Quail on 5 July the only noteworthy species during the seabird breeding season.

By late June day visitors and visitors to the Obs ceased due to HPAI guidance and this remained the case until late August. Bird sightings from those allowed to remain on the island were slim pickings, typical of late summer. The first groups back at the Obs in late August were treated to some good early autumn migration. It commenced on 20 August with a Cuckoo and Spotted Flycatcher amongst a trickle of common migrants through to a brief Treecreeper on 25th. A peak of 4 Pied Flycatchers on 27th were joined by Reed Warbler and Common Rosefinch on the 28th and a good island count of 3 Greenshank. Seawatching had been steady for a few days with Sooty shearwaters reaching 11N on the 31st along with a single Pom and a high count of 22 Arctic Skua.

Plate 263. Pied Flycatcher, Isle of May, 13 September 2022. *© David Steel*

Highlights during the first two week of September included four Common Rosefinches (two trapped and ringed), Icterine Warbler on 4th and the islands first Wryneck since 2016. This favoured the area between the main lighthouse and Obs from 3–6 September. The best bird during this spell proved to be a Greenish Warbler present in the Top Trap on 3 September although a male Bluethroat trapped and ringed on 11 September was the first autumn record in nine years. Large raptor migration occurred mid-month with a Honey Buzzard south on 13th followed by a Marsh Harrier on 14 September. The same day produced a Barn Owl (a scarce island visitor) in the bushes near the Obs which was seen on four subsequent days. Wader passage produced the typical spread of common waders with noticeable records including two Curlew Sandpipers south on 13 September (the first island records since 1998!) whilst a Black-tailed Godwit flew south the same day.

Seawatching has increased in recent seasons and it came as no surprise that rarer seabirds were noted on passage. The North Sea had witnessed an influx of large shearwaters in late August–early September and on the morning of 17 September a Cory's Shearwater was picked out flying north at 09:06 hrs and just 25 minutes later an even closer Great Shearwater was seen heading in the same direction (the double!) The same seawatchers then had double delight the following morning as two Great Shearwaters were seen flying north at 07:43 hrs and 09:56 hrs. This completed a memorable 24 hours, especially considering that these were fifth island record of Cory's and fifth to seventh records for Great. Later in the month another Great Shearwater was recorded flying north on 26 September whilst a juvenile Sabine's Gull in a mixed feeding flock of Kittiwakes and Little Gulls on 2 October was the 17th island record (involving 18 birds).

The month finished like it had started, with a flurry of birds including a lingering Yellow-browed Warbler, two more Treecreepers and a scattering of migrants including the autumn's first Woodcock and Jack Snipe. The pick of the bunch was a Radde's Warbler discovered in the Top Trap on 29 September before being trapped and ringed. The bird was only present for the day but represented the 12th for the island and the fourth in the last four years.

David Steel, NatureScot Reserve Manager.
Email: David.Steel@nature.scot

North Ronaldsay Bird Observatory

August started with the first Greenshank of the year on Gretchen. The 5th saw the return of two Red-necked Phalaropes to Ancum.

On the 8th, a Green Sandpiper was seen flying North over Holland. A juvenile Mediterranean Gull was seen on the rocks at the Obs end of Nouster beach on the 9th, before it flew off round the Lurand coast. The 11th started with a Woodpigeon in Nouster bay and a Green Sandpiper at Westness. The two moulting adult Red-necked Phalaropes were still present on Ancum and our first Willow Warblers of the autumn were found almost simultaneously, with juveniles at North Gravity and in the thistles at Antabreck.

The middle of the month seemed to settle into a steady rhythm of Greenshanks, Green Sandpipers and a Kestrel bombing around. The 17th was better again, especially on the sea, a drake Velvet Scoter was joined in the sea-watching totals by a Great Shearwater and a Leach's Petrel. The following day kept the birds coming with the first Barred Warbler of the year and another juvenile Mediterranean Gull. The 20th saw a juvenile Little Gull over the Seal Skerry, only to be topped by a moulting adult American Golden Plover in the stubble field opposite the pumping station at Ancum. A sea-watch on 21st produced a second record for the year of Black Tern and the first for Balearic Shearwater. The big shock of the day was a Little Ringed Plover trapped on Gretchen.

The 24th was a much better day, with a Red-backed Shrike being found in the Bewan punds and a very difficult to pin down *Acrocephalus* warbler at Brides eventually turned out to be a Marsh Warbler. Later in the day a Wryneck was found at the Old Kirk.

Sea-watching on 27th produced a juvenile Long-tailed Skua, a Cory's Shearwater, and a Pomarine Skua in the early evening.

There was a year tick of Rosefinch round the Obs on 29th and the evening at a nets session in Ancum we managed to catch a Paddyfield Warbler, a fifth record for the island.

Our first Robin of the autumn was trapped at Holland, as was the Paddyfield Warbler that was ringed a few days ago which had remained unseen skulking in the garden. The bird of the day came in the evening nets session, when a Serin was heard calling as is flew over Holland House, being picked up as it dropped into roost with Linnets.

September began and the 3rd saw migrants arrive in the afternoon and as more birds started to push through, a Wryneck was found in the Lurand Garden, a Blyth's Reed Warbler was in the Shooting Gallery and a Reed Warbler in the camping field. Our first Great Snipe in over 20 years was flushed from the thistles between South Gravity and Phisligar.

On the 4th there were Fieldfare at the New Kirk and Old Mill, two Siskin at Trebb and one at the Obs, Spotted Flycatcher at Tor Ness and Ancum Willows, Garden Warbler at Trebb and the Obs crop, Pied Flycatcher at Howar and the Trolla Pund, the Wryneck remained in the Lurand Garden, a Rosefinch in the Obs crop, a Common Whitethroat in the Shooting Gallery, a Lesser Whitethroat at Hooking House, a Tree Pipit at Gue Park, and a Blackcap at Trebb. On a sea-watch there were two Great and one Cory's Shearwater.

Plate 264. Wryneck, North Ronaldsay, Orkney, 8 September 2022. © *George Gay*

The migrants continued over the next few days with Wrynecks, Willow Warblers, Redstarts and other typical common migrants making up the bulk of the proceedings. A Golden Oriole was the highlight on 6th, remaining until the following day. The 9th would see the bulk of the birds, a massive 153 Willow Warblers, 90 Redstarts and 32 Lesser Whitethroats but the quality arrived the day before: a Great-spotted Woodpecker was found on the West side. The highlights on the 13th were a Turtle Dove at the Bewan pund, with a Little Stint and 2 Curlew Sandpiper on Bewan, 1 on Ancum and 3 on the Links. A Little Bunting was found in the Shooting Gallery in the early evening, taking the year list to 199. On the 14th a Nightjar was seen showing well on the Obs septic tank. Icterine Warbler and Barred Warbler were in Holland, a Great Spotted Woodpecker at Antabreck and a Turtle Dove at Scottigar.

The 15th saw a Hornemann's Arctic Redpoll, found in the early evening after a brief rain shower around the Obs. The 18th–19th were dedicated mostly to sea-watching and with good reason! With a total of 17 Great Shearwaters on 18th and three on 19th there wasn't much to argue against! Other sea-watch goodies included 2 Long-tailed Skuas, 326 Sooty Shearwater, 234 Manx Shearwater and a single Pomarine Skua on 18th and the following day would see 249 Sooties, 354 Manxies, 8 Pomarine Skua and 5 Long-tailed Skua, not to mention over 10,000 Fulmars, 160+ of which were Blue Fulmars! The 20th provided some good migrant action and the first Yellow-browed Warblers of the year with singles at the Surgery, Holland and Obs. A Bluethroat was seen briefly at Viggay, the long-staying Nightjar was seen between T1 and Holland and a third Great-spotted Woodpecker of the year was found at Rue.

The undoubted highlight would arrive on 21st in the shape of a Long-billed Dowitcher, initially seen over Antabreck with Snipe. It was then re-located on Ancum briefly before vanishing for the best part of six hours. It was also present on 22nd but again views were fleeting and brief! Things went a bit quiet for a few days before the 27th, which seemed to be fairly inane throughout the morning. This was quickly reversed as a White's Thrush was found around Stennabreck and showed magnificently. We weren't done quite yet though, a Hornemann's Arctic Redpoll was found showing superbly around Lenswick, a Buff-breasted Sandpiper was on Torness and the sea continued to provide good numbers of Sooty Shearwaters (741), 39 Manx Shearwaters, 2 Great Shearwaters plus the first Little Auk of the year.

The 29th was billed as being a 'big day' and it duly delivered with a distribution of migrants across the island including a very rangy Hornemann's Arctic Redpoll first found at Newbiggin. The first Red-breasted Flycatcher of the autumn was at Nether Linnay. A Barred Warbler was trapped at Holland but the birds of the day fell to an Olive-backed Pipit at Stennabreck, our first since a possible fly-over bird in 2020, and a Radde's Warbler, which is only the third island record and the first in just under 25 years!

Plate 265. White's Thrush, North Ronaldsay, Orkney, 27 September 2022. © *George Gay*

George Gay, North Ronaldsay, Orkney.
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Phil Harris's Big Year - Part 2

P. HARRIS

Having already seen 260 species on Shetland (see Phil Harris's Big Year - Part 1. Scottish Birds *34(3): 264–269), I flew south on the evening of 20 November and was met by Will Miles at Aberdeen airport, as he was already off Shetland on a break. We drove the short distance to a hotel in Dundee and got some rest before the madness began!*

Phase A

Day 1. The plan for the day was to bird various sites in Fife and Lothian with some targeted species in mind, and pick up some common birds whilst driving between sites. As I waited for Will in the darkness of the hotel carpark, a Tawny Owl **(261)** called from across the road. As I mentioned earlier, I was not keen to have any 'call only' birds on my list, so it was a relief when a few days later we got great views of one.

The first target species was Kingfisher at Guardbridge. We arrived in the half-light and made our way to the hide overlooking the estuary. Before we got there two Magpies **(262)** flew by. Unfortunately it was very low tide when we arrived at the hide and it did not look promising for Kingfisher. We took some advice and walked upriver to the road bridges. We arrived at the bridges and as I scanned one way, Will peered in-between the bridges. There then came Will's excitable voice telling me he had a Kingfisher **(263)**. I looked down in-between the bridges and there sat on a parapet was a stunning Kingfisher, we watched it for a couple of minutes before it shot off. I don't think we could quite believe it, what a start!

It was still early, and our next target was Goshawk. In my mind I was thinking that Goshawks probably wouldn't be on the move until later in the morning, but we couldn't deviate from the plan, so we arrived at the site anyway. Two ticks were immediately obvious, Common Buzzard **(264)** and Pheasant **(265)**. After about 20 minutes I started to question what the next course of action would be, but that was quickly cut short when a Sparrowhawk suddenly appeared above the wood, quickly followed by a Buzzard! Raptors were rising! Ten minutes later I saw a large raptor powering across the wood from the right and knew immediately it was a Goshawk **(266)** and Will was quickly onto it. The bird was only on show for about 40 seconds but 'Wow'. I just thought it was such a long shot, our luck was on fire.

Next, we found ourselves in the Kilrenny area of Fife with two farmland birds the targets. After a short search of a few fields, we pulled up by a caravan park to scan the area. Immediately a few birds flew toward us and just one of those birds landed on a telegraph wire almost right above our heads, it was target number one, Corn Bunting **(267)**, cue more looks of astonishment at how lucky we were being. Next target was Grey Partridge. We spent the next half hour driving around and scanning suitable fields but with no joy and we were getting a bit frustrated to be honest. As we drove along another lane with stubble fields either side, Will stopped to scan a dark lump in a field which turned out to be a lump of soil, but as I looked into the field on my side there were tractor tyre ruts and there, walking along them were six Grey Partridge **(268)**. As they moved out of the tyre ruts into the stubble, they became invisible, what a lucky place to stop! Also ticked at this stage was Coal Tit **(269)** a species we did not have to plan for, of course. That was Fife done, many thanks to Ken Shaw for his amazing input, such local knowledge was invaluable.

Plate 266. Corn Bunting, East Neuk, Fife, October 2022. © *Mark Wilkinson*

Next was Lothian, with Red Kite **(270)** *en route* from the car. We arrived at Fisherrow where amazingly Ian Andrews was staking out the White-winged Scoter **(271)** for us. We literally walked up looked through his 'scope and there it was, ideal! We talked with Ian about any local Nuthatch sites and that saw us follow him to a nearby mature parkland. It was windy and not ideal but with a bit of persuasive 'pishing' a tit flock appeared above us. Treecreeper **(272)** had us equal with the previous record then the record breaker, Nuthatch **(273)** with a pair performing well for us. I ended up seeing a lot of Nuthatches during this and another later tour. Thanks to Ian for his assistance.

We had done incredibly well seeing all our target birds but also with time. This meant we still had time to head to Glasgow to try for Ring-necked Parakeets. Fortunately, the hard work had been done for us with friend Martin Culshaw doing a recce of the parks a few days earlier. He had identified the best site, so an hour later we were pulling up at the park. We followed very specific directions to a particular tree, and began to hear the raucous calls of parakeets but prior to laying eyes on them we ticked off a Jay **(274)**. Then with the help of a thermal image camera, we got views of the Ring-necked Parakeets **(275)**. Amazing how well these birds blend in when there is very little cover. It was then off to Martin's house to stay the night; we just had enough light to check a Black Grouse site on our way but as expected no birds were present. However, it was not the last tick of the day, as outside Martin's we played Barn Owl **(276)** call and unbelievably one swooped over our heads within 30 seconds. What an incredible day, with the help of those mentioned we had scored everything and a few more than we had expected on Day 1. In doing so we had beaten the existing Scottish year list record of 272 and what's more we had plenty still to go for.

Day 2. Will and I left Martin's house in the half-light and headed just along the road to the Black Grouse site. I was certain the birds would be on the lekking site at first light, but disappointingly there was no sign. I was wondering whether to move on as today was about travelling across to the west coast to catch a ferry to Islay. Just as we were thinking we should push on I spotted five male Black Grouse **(277)** flying in low and fast before landing on the lekking site and immediately starting to display. What a fantastic site! Job done and on with the long drive west.

The scenery through the 'Rest and Be Thankful' road is stunning, and I couldn't help but gaze out hoping for a Golden Eagle to cruise over, but no such luck. Unfortunately, on the narrow twisty road we were stuck behind a petrol tanker. Will was driving and despite several looks to overtake it just wasn't safe! However, things were about to take a turn for the worse. Being an ex-firefighter, I have a firefighter's nose and began to get a whiff of burning brakes, which quickly turned into smoke coming from the rear of the tanker. I told Will to get the attention of the driver by beeping the horn and waving him over. As Will said he probably thought we were getting frustrated at being stuck behind him, so several convenient passing places went by before the driver eventually got the message. As he pulled over the inevitable happened and flames shot out of the rear wheel assembly! I ran over and grabbed a dry powder extinguisher from the rear of the lorry and began to attempt to put it out. The driver emerged clearly on loudspeaker to his company thinking he was being hijacked, saw the flames and seemingly ran the other way. In fact, he ran around for another extinguisher and got his company to call the fire brigade.

Will came over to check it was okay to be so close and I reassuringly told him it wouldn't blow up. He then got the thermal image camera out and kept us informed that it was still hot. The driver must have been thinking who on earth are these guys! After ten minutes I emerged from the cloud of smoke and dry powder and said to Will "this is going to cock up our chances of Pied-billed Grebe"! Not sure he could quite believe I was thinking about that. Anyway, fire out, fire service on route, we left the driver to it and swiftly moved on.

We now had a lot less time to look for the grebe but managed to get up to the loch in quick time. As we arrived three Black Grouse flew from the track, typical! We spent about 45 minutes at the loch but no joy with the grebe, our first dip, frustratingly it was reported the next day but no

reports thereafter. We made the ferry in good time and embarked on my first trip to Islay, where five year ticks awaited!

A nice adult White-tailed Eagle welcomed us as we arrived at the port entrance, I had already scored one on Shetland but they are always a great bird to see. We arrived in the afternoon, so only had about an hour of decent light. We had one target bird for the evening, so quickly headed out to Ardnave, where upon arrival we were greeted by 15 Chough **(278)**, a great start and with Will knowing Islay so well we were in a good place ready for tomorrow.

Day 3. We only had the one day on Islay, the ferry was leaving late afternoon, so the pressure was on to find the other four available ticks. Dawn saw us at Loch Skerrols and despite the drizzle and dull light we managed to pick the Lesser Scaup **(279)** up quickly. I have to say wildfowl are not my favourite and this did nothing to improve that! We moved on to searching through thousands of geese for the goodies, I was amazed by the number of birds present, a true spectacle.

Time was ebbing away and still no joy after searching through flock after flock. We headed back to Kilchoman distillery where one of our targets had been the day before. As we pulled up there were no geese to be seen. However, a shout of large raptor from Will had me baling out of the car as two Golden Eagles **(280)** soared around a small hillside, a majestic sight despite the weather. We were hopeful of just bumping into this species and that plan had paid off, this was good as it was now geese, geese, geese.

With only two hours left we headed back toward Gruinart scanning any goose flocks that we came across. Along a particularly narrow single-track road there was a large flock of several hundred Barnacle Geese in a field on my side, so I stopped to scan. Jackpot! I could see the rear end of the Cackling Canada Goose **(281)**, viewing was difficult and once Will had caught a glimpse of it we drove along to where a track ran down the far end of the field toward a farm where we had superb views of it. We were elated with that and were still buzzing when suddenly Wills voice went into hyperdrive! He had found the Red-breasted Goose **(282)** in a flock of Barnies on the opposite side of the track, both targets just 500 m apart, the atmosphere in that car was electric, how lucky had we been. Maybe wildfowl had gone up just a notch for me.

We even had an hour left just to relax and enjoy our time before heading for the ferry. The ferry journey back was uneventful other than the sharing plate of chilli nachos, we had one each in celebration. Back to Martin's house for the night.

Day 4. Another early start saw us arrive in the Slamannan area at first light, we began crawling around the lanes in search of geese. A distant flock in flight caught our interest but we could only get silhouette views, but they looked fairly large and long necked! They descended into a distant field so the chase was on. We managed to navigate our way to the correct field but disappointingly they were Canada Geese. Another half hour of driving around scanning empty fields followed before we pulled over and re-assessed.

A look at the SOC App (*Where to watch Birds in Scotland*), a very useful tool for any year lister, suggested viewing from some football fields at the back of Slamannan village. On our way there I decided there were some fields that we had not viewed yet due to a hedge blocking our view, so we pulled over, got out and found a gap in the hedge; there in the bottom of a shallow valley was a flock of 200+ grey geese. Will hastily set up the scope and within seconds happily broke the news that there were Taiga Bean Geese **(283)** amongst them. The count was just 18 Taiga Beans with the rest being Pink-footed Geese.

Plate 267. Taiga Bean Geese, Slamannan, Upper Forth, January 2020. © *Mark Wilkinson*

Back in the car and off to the Tay reedbeds. As we emerged from a belt of trees the vastness of the reedbeds hit me! I thought this is going to be a struggle. We walked about 50 m and 'ping-ping', that fantastic call of Bearded Tits **(284)**. After a few tense minutes a pair crept up onto some reed heads. Wow! More looks of disbelief between us as we near sprinted back to the car.

Next phase was to collect fellow Shetland birder Glen Tyler from Aviemore. Glen had come off Shetland on the overnight ferry and caught the train to Aviemore where he joined us for the rest of the adventure. We arrived in Aviemore and met Glen in perfect weather for us to get up into the mountains to search for Ptarmigan. Will had spent a lot of time in these mountains and had a favourite area to look for the birds, so like a mountain goat he was off, myself and Glen scurried behind scanning and using the thermal image to try and pick up any heat sources amongst the scree and boulders. After a few kilometres Sherpa Miles had come to a halt and was getting his telescope out, promising! As we arrived, he pointed at two clean white blobs near the top of a ridge, bear in mind there was no snow! It was two gleaming white Ptarmigan **(285)**. I cannot say they were exhilarating views and if they were a lifer, I wouldn't be particularly satisfied but, in our situation, it was perfect, we had seen them and in good time. We thought our whole afternoon would be taken up on this species so to now have time for more was just what we needed.

Again, Will's knowledge of the area was invaluable as he soon had us parking in a small car park in Abernethy Forest, and after a short walk we were in amongst a tit flock which had several Crested Tits **(286)** in its ranks. We had about 45 minutes of light left so decided to go to the nearest village in search of one of the species we thought we would just trip over at some stage, and after arriving and splitting up, I came across a nice flock of Long-tailed Tits **(287)**. It's easy to forget some species as you concentrate on the target species, so was nice to get this one under our belts.

It was at this point we had a little stroke of luck, a lady walking some dogs approached us and asked if we were birders and what we were looking for. I explained about the big year and in the discussion Capercaillie came up which was our target tomorrow. We had been given a couple of sites to check but the gen was quite old, so it was going to just be potluck really. However, the lady informed us she sees Capercaillie most mornings when walking her dogs if she is the first person in there. She pointed out exactly where on the map and as luck would have it, we were staying in a hotel about a 1.5 km away. Over dinner we discussed it and decided to go with the latest gen and try the dog walker's site.

Day 5. We began our walk into the forest in the half-light hoping to beat any early dog walkers, slowly walking along using the thermal imager to scan ahead for any birds. After 30 minutes we had only picked up Roe Deer, when I picked up a heat source halfway up a tree, which was obviously not going to be a Roe Deer! I began to describe the position to Will and Glen, but before I could finish a female Capercaillie **(288)** burst from the tree and headed away from us at high speed just giving glimpses between trees. Another frustrating encounter with one of Scotland's enigmatic specialities. We walked on a bit further hoping for another shot and looking for any crossbills. We couldn't give it too long as the Moray coast beckoned, so after another kilometre, we turned back only getting crossbill calls briefly, but not enough to get a sound recording and we didn't even see them.

We arrived at Lossiemouth mid-morning and headed to the beach to scan the large scoter flock. Conditions were not great with an onshore breeze blowing, creating a bit of chop which the birds would disappear into and only armed with one scope it felt a bit of a daunting task. However, on my first scan I picked up a Great Crested Grebe **(289)** flying across, a real bonus as I was really expecting to get one in Lothian. With binoculars you could just about make out the difference between Commons and Velvets, but it wasn't easy. Eventually Will picked up the Black Scoter **(290)** in the 'scope but by the time I got in position I couldn't pick it up. It would be another 20 minutes before I did, but the same happened to Glen when he got to the 'scope he couldn't pick it up either. In fact he didn't see it that day. Fortunately Glen and Will returned the following day once I had headed south and saw it then.

Close by three Snow Geese had been reported for the past week or so commuting between Loch Spynie and some nearby fields so we set off in search. It didn't take long once we had found the large flock of Pink-feet and Greylags to locate the Snow Geese **(291)**. Of course, when it comes to a trio of Snow geese you wonder whether they will be accepted by a committee, so when the opportunity to see another found at Skinflats with a flock of Pinkfeet, we went and saw it just as an extra banker.

One of the common birds I had yet to see and one we hadn't really planned for just hoped to bump into was Bullfinch. With no joy yet I was getting a bit worried, so we again turned to the SOC App to see if there were any nearby sites. Loch Spynie itself was on the list so we headed there. The App says to walk around the loch to where the path meets the old railway line and this is a good spot for Bullfinch, well we arrived at the old railway line and bang, Bullfinch **(292)** greeted us, whoever wrote that needs a medal.

Day 6. Our final full day off this phase began with us walking back into the Capercaillie site with the thought off hopefully seeing another Caper but also a last shot at crossbills. We knew when it came to getting Scottish or Parrot Crossbill accepted we would need both sound recordings and photos, but despite being armed with the gear, our only encounter that morning was a pair briefly in a treetop. Unfortunately, our sound recording was not the right type of call and of poor quality, and photos were not gettable! We felt the female was a Scottish candidate but that's as far as it went. Somehow, I wasn't particularly disappointed as they will likely go the way of redpolls!

However, before the brief encounter with the crossbills, we had what was undoubtably the highlight of the trip for me. I was scanning ahead with the thermal imager when I picked up a close heat source next to the track very close in front, my initial thought due to the size was a Roe Deer, with just its head sticking out above the amazing vegetation of the forest floor. I lifted my bins to see a fantastic male Capercaillie just frozen staring at me. I don't remember my exact wording, but as you can imagine in the excitement and adrenalin, there were a few expletives to the others before we were all enjoying this magnificent bird. There was then five minutes of complete silence as we just looked at each other before it exploded away with its beautiful tail spread out. By far the best experience I have had with this species, only having seen a male once before distantly from the Loch Garten hide.

After such an amazing encounter with undoubtably the king of gamebirds we found ourselves ticking Red-legged Partridge **(293)** by the A9, from one end of the birding spectrum to the other! We had now hit all of our targets and had time to think about Green Woodpecker. We were heading south to try a few sights when news broke of a Glossy Ibis at Blair Drummond gravel pits. Martin Culshaw got in touch and was heading to see the bird so would keep us updated. We arrived and met Martin who led us to the Glossy Ibis **(294)**, a bonus tick, and it was at this point that the news of a Snow Goose at Skinflats broke, and with darkness falling we banked it. This phase was now over as we overnighted near Aberdeen where Becca and Ayda arrived off the overnight ferry the next morning and we headed south for Becca's operation and Christmas and New Year. We did stop at Castle Loch in Dumfries & Galloway on the way south but unfortunately didn't manage to locate any Willow Tits.

Becca had been updating our progress on social media and we had generated quite a following, with many people saying surely 300 was possible? Actually at that time there just was not enough species to get us there. However, once Becca had recovered enough from her operation, and if there was enough target species to get me to 300, we made a decision that I should definitely go for it.

Phase B

Day 1. On 10 December I ventured back north, there were six possible ticks that would take me to 300 for the year. News on some of them was already well out of date, with no reports for over a week in some cases. I arrived at the Ken/Dee marshes at lunchtime and made my way towards the hide and feeding station. The storm damage from Storm Arwen was incredible, with so many felled trees. I arrived at the first hide only to read a sign saying both hides were closed. However,

Plate 268. Water Pipit, Dunbar, Lothian, March 2020. © *Mark Wilkinson*

there was still a feeding station near the second hide, I was just approaching the second hide when I heard the bird I was there to see, Willow Tit **(295)**. I really enjoyed watching four birds, a species I have not seen for over ten years. I soon felt the pressure to move on, I still needed Green Woodpecker and according to the SOC App there was a site not too far away, and I had the rest of the afternoon to try and locate one.

I arrived at Barhill Plantation (part of Dalbeattie Forest) and began my search again. The recent storm had taken its toll and you couldn't negotiate the footpaths for fallen trees. It was ghostly quiet other than a few Red Squirrels. I even spoke to several dog walkers as to whether they had heard or seen any woodpeckers? Eventually one lady told me a pair bred this year, but she hadn't heard or sighted them for several months now. I searched other nearby plantations till last light but no joy, Green Woodpecker was going to become my nemesis, as you will soon read. I arrived at Martin Culshaw's for the next three nights. Martin was going to join me for the next two days, having again checked some sites for me before my arrival.

Day 2. We arrived in Ayrshire before first light, we were parked on the access road to Hunterston nuclear power station wondering if the police might pay us a visit, when the first Pink-footed Geese began arriving. We adjusted our position to view the field they were landing in and quickly picked up our target Ross's Goose **(296)**, only recently accepted onto the British List, this individual had great credentials. We were lucky because within ten minutes a gunshot rang out and the goose flock disappeared, with the Ross's not being reported for the rest of the day.

We headed south to Bracken Bay with two targets, Red-necked Grebe and Water Pipit. Despite a few false alarms with Scandinavian *littoralis* Rock pipits we had no joy with either species, but as I mentioned earlier, news of either species was well over a week old. Next was Ardeer Park, Stevenston. A real Scottish rarity had been found and the first tickable bird for Scottish listers, Cetti's Warbler **(297)**. We arrived in miserable weather with steady rain coming down. Thankfully the search area was small, but these birds are notoriously elusive and so it proved to be. It was 45 minutes before it finally gave that diagnostic call, but it would be another 15 minutes before we got the briefest of views as it flicked up onto some rushes before disappearing again. I was jubilant as again there had been no reports for quite some time, so I was fearing the worst. It was then Green Woodpecker time again, giving ourselves the rest of the afternoon at a known site, but conditions were dreadful and despite our best efforts no joy.

Day 3. The day began with a trip down to the Borders, we were literally on the border with England but the gen we had on this species was already eight years old. Martin had seen Marsh Tits at a garden feeder in a small riverside village all those years ago, and despite the feeder still being active no Marsh Tits were present. Despite putting feelers out it seems Marsh Tit may no longer be a 'gettable' Scottish bird, much the same as Little Owl? So with that disappointment we headed to Dunbar, the next two species were not going to be easy either, with news of both nearly two weeks old.

We arrived by Dunbar golf course and walked along the coast in search of Water Pipit, I had some good gen of areas to search from Ian Andrews. We arrived at one of its favoured sites and were met with a large mixed flock of Rock Pipits (including some Scandinavian birds), Meadow Pipits and Pied Wagtails. It was difficult to keep up with them moving in and out

of the rocks, but no sign of the Water Pipit. A quick call to Ian to ask if the bird was usually with the flock or alone was very useful, as Ian confirmed that it was normally alone and would often fly off to the next small bay alone.

During the conversation Ian casually mentioned he had just had a Red-necked Grebe at Joppa, just along the coast from where we were! This put a spanner in the works, hot news of another target, do we continue or just go for the grebe? The decision was to go to the next bay to look for the pipit. On arrival this was not looking like a wise decision as there wasn't a bird to be seen, the only birdie was going to be from a golfer! We were debating our next move when Martin said 'let's just play the call in case' and blow me, within seconds the Water Pipit **(298)** jumped up on a rock near the sea edge and began calling back, before flying over to check us out. Eureka! 300 was on!

It was a quick march back to the car, Ian had told us where best to try for the grebe as it was drifting, fortunately the water was mill pond calm and it wasn't long before we picked up the Red-necked Grebe **(299)** at a distance but unmistakable. I was just one away from 300 and there was only one gettable species, Green Woodpecker. Martin had a few sites lined up, so we began our search. Despite being in great habitat and knowing Green Woodpeckers were in the area we had no luck that day. However, all was not lost, Martin had a few sites for me to check the next day where he had seen them before and an area where a friend of his had confirmed breeding this year.

Day 4. I woke that morning with the mindset that I would not be leaving Scotland till I had seen number 300. I set off alone for Aberfoyle, as Martin was back at work. The first area I was given to try was a nice wander along a river with mature woodland, again perfect habitat but no joy, a look at the surrounding woodland covered hills brought home the task in hand. Undaunted I headed to the next site, the golf course, surely one had to be there with such fantastic feeding opportunities that the fairways present? I arrived at an empty car park which meant no golfers, good news. As I stepped out of the car a distant yaffle! At last GREEN WOODPECKER I had done it! Or had I? I had no call only birds on my list so there was no way number 300 was going to be the only one.

I steamed across the empty golf course in the direction of the call, it called again but still distant and from a heavily wooded hillside. I tried to call it out but only heard it once more still very distant. I spent the next three hours walking along the Rob Roy Way listening and searching, but I was losing this battle. However, I did come across a likely roost tree, a very large dead tree trunk with several large woodpecker holes in, maybe one to return to later? I headed off to another site Martin recommended, a site I had seen Green Woodpecker with Martin many years ago. Another hour's fruitless search and I just didn't feel good about it, I wanted to return to the golf course.

More hours passed and I was becoming more frustrated, now contemplating staying over to search again tomorrow. With about 40 minutes of light left I was back near the carpark and met the greenkeeper, he told me he never sees them on the golf course, but hears them regularly in the direction of the tree I had found earlier. I thought I can't give up now, so made my way over to the possible roost tree. Five minutes later and close by came what I had been hoping for, the call of the Green Woodpecker. I called back with my best yaffle and within seconds the male was above me calling back, quickly joined by a female. I was literally jumping for joy, fist pumping to myself, finally it was there, **300 for Scotland in a year!** Amazingly I watched the birds go to roost in the very tree and was just elated.

260 for Shetland, 300 for Scotland. These will always be the numbers I will remember; we will eventually drop two with the redpolls being lumped, but I'm happy everything that is still awaiting acceptance will be accepted in due course. I look forward to following any future attempts, as 300+ in Scotland is certainly do-able...

Big thanks to Rebecca and Ayda again, and Will, Glen and Martin for playing such a major part in the Scottish phase.

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Plate 269. Glossy Ibis, Loch of Burness, Orkney, 20 February 2022. © *Steve P. Dudley*

Wintering Glossy Ibis in Westray, Orkney, 2021/22

S.P. DUDLEY

At 12:55 hrs on 15 December 2021, I got a call from one of our island posties, Christine Paterson, saying she'd just seen five odd birds 'like big, black whaups wi long grey beaks by the sandy road that's no more the sandy road' she said laughing. I had a very good idea what the big black whaups would turn out to be, but the 'sandy road that's no more the sandy road' confused a recent newcomer to the isle. Once we'd sorted that out I was in the car and at 13:05 hrs I was watching five Glossy Ibis feeding ferociously in a flooded field on the edge of Pierowall village. I immediately put the news out on both our isle and county WhatsApp groups.

I sat in the car watching the flock of ibis feeding when after about ten minutes a sixth bird flew in from over the village from the south-east, followed some minutes later by a seventh bird from the same direction. I watched for a further half an hour, taking photographs, before having to return to the office for an afternoon meeting (and adding them to my house list in the process). During what remained of the light of our short afternoon several locals ventured out to see the ibis. I went back out at 15:30 hrs to see if I could see where the ibis would head to roost, but they'd already gone and I drew a blank searching for them at potential roost sites around lochs Saintear and Burness.

Thursday 16th dawned with the ibis, now eight in number, back at the same flooded field and they spent the day moving between three fields just outside the village to the enjoyment, and bemusement, of locals.

The number of birds continued to increase with 11 present by the 22nd. They had by this time moved feeding areas with the Loch of Burness (immediately below our house) becoming their focal point for feeding and roosting, during our dark Orcadian winter. Up to nine birds were regularly seen to late

Plate 270. Glossy Ibis, Loch of Burness, Orkney, 26 April 2022. © *Steve P. Dudley*

February 2022 with seven birds around Burness in to April. In addition, a lone bird took up residence at Roadmire a few kilometres to the south. By mid-April just two birds remained at each of these sites, with all four birds staying into May with the last bird seen on 7 May.

However, at 06:35 hrs on 28 April, I was having breakfast watching the two Burness ibis from the living room when a flock of five birds flew in high from the east, circled the loch before returning eastwards. I jumped in the car but couldn't find them and on checking Roadmire found the now usual two birds present in their usual feeding areas. So briefly, we again had nine birds on the isle. Interestingly, that same afternoon two birds were seen briefly on neighbouring Papay Westray. Were the Papay birds part of the five? Or another two? Did it suggest that all 11 birds from December had wintered locally?

Elsewhere in the county, single birds were also seen in Mainland (from 9 April - thought to be a dispersing bird from Westray) and North Ronaldsay (2 May - and possibly just as likely from Shetland as from Westray).

Their behaviour fascinated me and two aspects in particular stood out. Westray is a wet and windy island in winter with shallow soils soon becoming waterlogged after heavy or prolonged rains. As fields got wetter the ibis would feed higher up the slopes of the fields draining into the Loch of Burness and in the wettest periods could venture several fields above the loch. But being quick draining, on dry days following rain the ibis retreated down the field slopes towards the loch. It wasn't until April that the fields began to dry out to such an extent that the ibis abandoned all but the lowest fields and began foraging frequently around the loch edge and in several of the wet drains running into the loch.

The second behaviour was how they used the landscape around the Loch of Burness to roost, and to shelter from the worst of the winter squalls during the day. Loch of Burness is very exposed and even the bankside vegetation grows only to a modest height, generally no higher than 1.5 m. There are several channels and depressions within the highest vegetation areas and the ibis would alternate between these as roost sites depending on the prevailing winds. From the higher position of our house I could still make out roosting birds even in the densely vegetated site. During the day the birds used a couple of the deeper drains to take shelter when fierce Atlantic squalls swept through. Some days they would be repeatedly flying in and out of these drains to feed in the closest, wettest fields between squalls. These drains worked well for them when the winds had any amount of north in them, but if the winds turned between west and south the birds moved to the other side of the loch and utilised a couple of the taller stone dykes (walls) to shelter behind. I also suspect they occasionally roosted behind these walls in such conditions as on occasion I failed to see them come into the their usual loch side roost sites below the house.

The Westray ibis flock was part of a larger movement of birds, mainly in to southern England (largest flock being 18 in Cornwall) and southern Ireland (across 45 sites with their largest flock numbering 21 in Co. Cork). Some birds did venture north of Orkney with at least four seen across Shetland, one bird found on a sea vessel off the Icelandic coast in December, and on 23 December news of two birds came from mid-Norway. The Norwegian sighting was revelatory as one bird bore a Spanish ring giving us an origin for this winter influx, the timing of which coincided with reports of the vast wetlands of the Parque Nacional de Doñana (Coto Doñana) in Spain drying out.

This is the 12th record of Glossy Ibis in Orkney with one previous record from Westray, a single bird from 19 December 2013–3 February 2014. However, it is not the largest flock recorded in the county: in 1907, nineteen or twenty were seen at Sandwick, Mainland on 24 September with ten having been shot by 1 October (Booth *et al.* 1984).

Reference

Booth, C., Cuthbert, M. & Reynolds, P. 1984. *The Birds of Orkney*. The Orkney Press.

Steve P. Dudley, Orkney.
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Plate 271. Dark-eyed Junco, Kildalton, Islay, Argyll, 7 May 2022. © *David Dinsley*

Dark-eyed Junco, Kildalton, Islay, 7 May 2022 - first Argyll record

J.M. DICKSON

In recent years there has been steady increase in the number of Nearctic passerines turning up in Argyll, although still somewhat less than for our 'shared sea-border neighbour' the Outer Hebrides! However, we can now claim ten passerine species - our two records of Nearctic Cuckoo species and a Nighthawk record aside - this includes some quality finds such as Yellow-bellied Flycatcher, Brown-headed Cowbird, American Redstart, White Crowned Sparrow, Northern Parula and two Cedar Waxwings to name a few. Therefore, it came as no great surprise that this trend should continue when David Wood, the site manager at the RSPB Oa Reserve posted on the Islay WhatsApp group at around 14:00 hrs on 7 May - "Dark-eyed Junco in Mary-Ann's garden (Kildalton, south Islay) showing occasionally..." along with a great single image of it.

It later transpired that this bird had been found earlier by Bob Brown - a birdwatcher on one of his regular trips to Islay from his home in Dorset. He was staying in his campervan in the garden of his friend Mary-Ann Featherstone at Dower House, Kildalton. While looking out his van window he first noticed this strange sooty grey bird starring back at him only a few metres away as it fed voraciously at a bird table sometime just before 09:00 hrs. Subsequently chatting with Bob, he was very honest in telling me he didn't know what species it was but had a good feeling it was probably an American and certainly rare! After his find he alerted Mary-Ann at Dower House, who is also regular contributor to the Islay Whatsapp bird group and she in turn got in touch with David Wood (DW) to come and check it out.

When DW arrived at Dower House, he was able to identify the species and watch it at very close range from Bob's campervan as it fed for short spells. It returned to the bird table every 20 minutes or so, enabling great photos to be taken. Later, RSPB Oa reserve warden David Dinsley arrived, and he also got great photos, followed by a small band of other interested Islay birders. The bird continued to feed well into the evening.

The bird had behaved in typical Junco style as they do in North America being a relatively approachable and common backyard visitor to bird tables. This record appeared to fit in well for this species occurrence in Europe being in spring and of the more migratory 'Dark-eyed' variety that have a tendency to overshoot on spring migration rather than in autumn when the return migration path is more inland. Also, it appears that most if not all spring records involve males.

My own contribution to this story is one of pathetic failure, as is often the case when twitching the Argyll islands from the mainland due to the logistics of distances and ferry times. Unfortunately, I had been out helping with some survey work and received the alerts too late to get to Islay that day and with the bird departing overnight inevitably dipped - once again! I met Bob Brown and Mary-Ann at the site the next morning, spending about an hour hopelessly casting half an eye over a Junco-less bird table, however, I did see an adult White-tailed Eagle flying directly overhead dangling a Brown Hare from its undercarriage. Chatting with Bob, he said that he doesn't use a computer or emails as they are not his thing and asked if I could submit this record and write it up on his behalf, hence this contribution. So, roll on the next Nearctic vagrant for Argyll as there are still many possible candidates.

Jim Dickson, Cairnbaan, Argyll.
Email: Argyllbirder@outlook.com

This record is subject to acceptance by the British Birds Rarities Committee (BBRC).

Plate 272. Dark-eyed Junco, Kildalton, Islay, Argyll, 7 May 2022. © *David Dinsley*

Plate 273. Black-winged Stilt, RSPB Lochwinnoch, Clyde, 19 May 2022. © *David Mitchell*

Black-winged Stilt, RSPB Lochwinnoch, 19 May 2022 – third Clyde record

R. CONN

Plate 274. Black-winged Stilt, RSPB Lochwinnoch, Clyde, 19 May 2022. © *Robert Conn*

On the 19 May 2022, I was beginning my shift at RSPB Lochwinnoch visitor centre (Renfrewshire) where I work as the Visitor Experience Manager. During late September–early October 2021 we had carried out some habitat management work near to our visitor centre to create a new scrape habitat. This had proved to be very successful, drawing in more frequent sightings and larger numbers of Lapwing, Oystercatcher and Ringed Plover than previously, along with other passage waders, such as Redshank, Greenshank, Dunlin, Ruff and Common Sandpiper to name a few, occasionally dropping in.

While opening the blinds that look out from to the visitor centre onto our newly created scrapes at 09:00 hrs, I noticed a large wading bird feeding quite enthusiastically around the shallow edges. Its long red legs immediately made my brain go 'Redshank', having seen one recently, but then very quickly I went 'hold on, that's no Redshank'!

I wasn't sure what it was, having never seen one before, but somewhere in the back of my brain I connected the very long legs with stilts, having heard of this species and having seen images previously. I quickly looked it up in the *RSPB Handbook of British Birds* then posted an image of it on the 'Clydebirds' Twitter page asking if someone could confirm my identification, as I was in such disbelief that I was doubting what I was seeing. I also showed the image to two volunteers that had come in and asked them to look at the bird through a telescope and compare it to the image in the book. I was convinced it was a stilt, but at the same time I was still in disbelief and questioning myself. Thankfully, they both agreed with my sighting, and it was also quickly confirmed on Twitter. It was indeed a Black-winged Stilt (although admittedly in my excitement I had mis-typed the name on Twitter and put Black-winged Stint).

As the news spread quickly on social media (Clydebirds page on Facebook and Twitter), many people visited the reserve to see it. The first observers arrived within half an hour of the news being put out and the visitor centre was quite busy on this otherwise quiet day. Although many people saw it from the visitor centre, it was also visible 'after hours' from the nearby Channel Hide. It remained late in to the evening but was not seen the next day.

Plate 276. Black-winged Stilt, RSPB Lochwinnoch, Clyde, 19 May 2022. © *Joe Timmins*

Plate 275. Black-winged Stilt, RSPB Lochwinnoch, Clyde, 19 May 2022. © *Joe Timmins*

This was the first record for the RSPB Lochwinnoch Nature Reserve and only the third record for the Clyde area. Interestingly, the other two records were also from Renfrewshire; the first was of an immature collected near Port Glasgow in 1850 and the second was one near the Erskine Ferry on 5 October 1958. The fact that this was the first Clyde record for well over sixty years and a rarity in Scotland too made it a very exciting bird for those who saw it. Unfortunately, due to its very short stay, many (including some of the top Renfrewshire / Clyde listers) dipped too.

Robert Conn, Lochwinnoch, Clyde.
Email: Robert.Conn@rspb.org.uk

This record has been accepted by the Scottish Birds Records Committee (SBRC).

Returning Short-toed Eagle, Strath Brora, Sutherland, 24 May 2022

D. MacASKILL

The morning of 24 May was nice and bright in Strath Brora with Skylarks singing and Snipe roding. As I scanned the hillside above the strath I noticed a Common Gull mobbing something, but it was out of view and clearly moving behind the ridge. As the gull approached a dip in the hill I caught sight of the wing-tips of a large raptor. I thought it might be the immature White-tailed Eagle I had seen recently in the strath. A few seconds later the bird appeared low over the ridge and I then thought Red Kite, but as it turned I saw the tail was barred. As I was trying to figure out what it was it landed on a rock just below the ridge about 1 km distant. I quickly set up my 'scope and soon had it in view and to my amazement realised it was a Short-toed Eagle. I had seen them in Portugal only a few weeks previously but never imagined I would find one in the hills of Sutherland!

It seemed content to perch on the rock, looking around and preening. I could see its yellow eyes and large grey head, almost like a huge male Hen Harrier. At one point it was mobbed by a female Hen Harrier, clearly showing the size difference between the two species, with the eagle by far the larger. I was taking photos with my bridge camera, but because of the distance and a shimmer from the heat haze I could not get anything decent. My next thought was to contact Bob Swann as I knew he would come over within the hour if he was at home, but unfortunately he was on Canna. Still shaking, I tried to contact a few other Highland birders who would jump at the chance to see the eagle. One had just arrived in Shetland, another was in the Minch en-route to Lewis and another on Skye. Thankfully Peter Stronach wasn't too far away and said he would be over by the afternoon.

The eagle remained on the rock from around 09:15–10:05 hrs, then as the day warmed up it took off and began to hunt over the ridge. As it began soaring and hovering I was able to see more plumage details: it was long-winged, dark above with pale upperwing coverts and long dark primaries, a broad tail with broad dark bars and a large dark head contrasting with pale underparts. As it hunted it was drifting NE and eventually disappeared out of sight.

I stayed in the area hoping to see it again. At 12:05 hrs it reappeared and was circling with a Buzzard before drifting SW. I drove to another vantage point and started scanning. Soon it was all happening as I picked up an adult Golden Eagle chasing an immature White-tailed eagle, providing a fantastic action sequence and then I spotted the Short-toed Eagle still heading SW. Three eagle species from one viewpoint in Scotland, probably a unique experience! I informed Peter that the Short-toed was still heading towards Lairg and he managed to intercept it at Meall Dola around 13:30 hrs. It was just after that I put the news out. My thoughts were that it may have come in off the coast at Brora and was making its way back to the area it was seen in last year and could be searched for from the roads in that area. However, over the next three days the weather was wet and windy with no further sightings.

Peter and I agreed to resume the search for it on the 28th as the forecast looked more settled. At 09:45 hrs I picked it up again back in Strath Brora, hunting along the ridge near Loch Grudaidh. Bob Swann had joined me and Peter headed up the track towards the loch, where we guided him onto the bird. He lay down in the heather with his camera ready

Plate 277. Short-toed Eagle, Strath Brora, Sutherland, 28 May 2022. © *Peter Stronach*

hoping to get a decent shot. It actually flew towards him allowing him to get some stunning photos as it flew directly overhead. The resulting pictures enabled the bird to be aged as a sub adult 4cy bird (Plate 277) which fitted in with the previous year's sighting.

The news was then put out that it could be viewed from the track by the loch. It remained in the area for at least the next ten days and many birders were able to connect with it. With so much ground to cover it could of course have moved a bit and remained unobserved. It is incredible that this individual, so far out of its normal range, returned to the uplands of Sutherland for a second summer.

Dean MacAskill, Woodside Cottage, Achavandra Muir, Dornoch, Sutherland.
Email: deanatthepoint@gmail.com

Short-toed Eagle status in Scotland

This species breeds across the Western Palearctic from northern Morocco to Libya, with the bulk of the European population found throughout the Iberian Peninsula to southern France and fewer across northern and eastern Mediterranean countries, then larger populations across Turkey and easternmost Europe into Central Asia through southern Russia to Kazakhstan and Iran into Afghanistan.

In recent years, Short-toed Eagle has begun to appear more frequently in northern Europe, a development possibly linked to climate change. For example, in The Netherlands, which is at a similar latitude to southern England, birds first began to over-summer in 2011. The year 2022 saw the largest numbers yet, with well over 20 individuals recorded, and up to five birds at a single site at the De Hoge Veluwe National Park, Gelderland (Waarneming.nl).

So far there have been five accepted records of Short-toed Eagle in Britain, with the first four in southern England: 1999 (Scilly), 2011 (Devon), 2014 (Dorset, Hampshire, Sussex, Surrey & Norfolk) and 2020 (Dorset). The fifth British record (and first for Scotland) was a bird in Highland on 20 June 2021 (Hutt, 2022). Based on the same location details, the bird discussed here is considered to be the same individual as in 2021.

References

Hutt, A. 2022. Short-toed Eagle, Highland, 20 June 2021 - the first Scottish record. *Scottish Birds* 42: 75–76.

Lesser Yellowlegs, Frankfield Loch, 4 June 2022 – first Clyde record

D. WILSON

During April 2014, after six months of observing various sites reasonably close to my home in Tannochside, Uddingston, I decided to adopt the local area around Gartloch as my patch for recording birds. This is no more than a ten minute drive from my house. The recording area is two km², not one, which I originally intended (I was never very good at maths!), but it worked out well, as the centre of the recording area is what I call Gartloch Main Pool, otherwise known to the local anglers as the 'puddle'.

The reason it worked out well was that my 'patch' includes three of the lochs within the Seven Lochs Wetland Park, namely Gartloch, Bishop Loch and Frankfield Loch. The area is wild with some Seven Lochs paths, old disused hospital paths and deer tracks. It has proven to be a superb place to observe, photograph, record, insects, mammals, flowers and of course birds.

It took me at least seven months to find my way around and during this time I never gave Frankfield Loch too much attention as I felt it was well covered, at my peril! I then learned Frankfield Loch had a good pedigree for attracting the odd 'special' bird and by around 2017 I started to incorporate a visit more regularly on my rounds. It paid off!

Plate 278. Lesser Yellowlegs, Frankfield Loch, Clyde, 4 June 2022. © *Andrew Russell*

From 2017 till now, Frankfield has added considerably to the annual and total patch species count, with birds such as Redshank, Greenshank, Ringed Plover, Little Ringed Plover, Sandwich Tern, Garganey (autumn birds found over three separate years), Little Gull (found by Chris McInerny), Mediterranean Gull (found by Keith Hoey and Chris McInerny, separate birds in differing years), Little Egret, Osprey, Cuckoo (this June), Wood Sandpiper, Iceland Gull, Blue-winged Teal, Ring-necked Duck, Black-tailed Godwit, a fly over Gannet (again recorded by Keith Hoey and Chris McInerny) and of course the spectacular event last year of the four Pectoral Sandpipers kicked-off by Gary Brown. And all less than 8 km (5 miles) as the crow flies from George Square in the middle of Glasgow and with Frankfield itself being a very urban site!

But nothing prepared me for the events of 4 June 2022. The previous night (Friday 3rd) I had friends visiting from down south and was up longer than usual, and as such I was late getting up. My intention was to start my patch rounds at Frankfield, as on the Friday morning I had noticed that some exposed mud was starting to appear and there was a small party of Lapwings on one of the mud flats - these being the first of the autumn. That triggered in my mind that from this point onwards I would definitely make Frankfield my first port of call and if possible, visit every day. I work a constant backshift at the moment and so I am able to get out and bird every morning whilst giving Bruno, my short haired Collie, and my trusty birding companion his daily walk.

June can be an interesting month, and unusual birds can turn up, for example the Blue-winged Teal from 2019. It's also a time when non breeding waders can start to appear and the drake Mallards numbers start to build up, moulting into eclipse plumage. As mentioned, I

was later than usual arriving at Frankfield, about 10:20 hrs, and I was also being a bit lazy, as when I arrived, I just slung my binoculars around my neck and left my scope in the car. I am mainly a bins birder but for most of the lochs I cover a scope is recommended, but I quite often chance it!

Anyway, out I got and walked the 40 m or so (good for the lazy birder!) to the start of the spot where you can start to view the loch. I had been counting the Mallards over the past week or so, as the numbers were increasing day on day, and this was my first objective when I first lifted my bins. I was working right to left, and in the foreground, and then started working the middle of the Loch when I noticed a wader.

Plate 279. Lesser Yellowlegs, Frankfield Loch, Clyde, 4 June 2022. © *Andrew Russell*

"Ya beauty" I said to myself, and on my first instant glimpse I though Redshank. I then looked at it a bit more thoroughly and I was still thinking "It's probably still a Redshank", but its overall shape and jizz were puzzling me, and I noticed how slim, elegant and elongated it looked, "Nah, it's still a Redshank"! To put things in perspective, at this point I would have been delighted with a Redshank, as due to the very high spring water levels, the wader species had been very poor to this point during my patch 2022 year, and I was getting kind of desperate for any kind of wader!

As I was mid-count of the Mallards, I said to myself, "right finish counting the Mallards and then try and sort out this wader"! The next thought was "What are you thinking you idiot"! So, I hurried back to the car and got my scope, and then back to the small bay area in the centre of the loch as this would give me the best vantage point to see the mystery wader properly. Poor wee Bruno, he didn't know if we were coming or going! The scope was hastily set up and then I got the wader in view with it being about 80–100 m away.

So, my birding philosophy which has kept me reasonably on the straight and narrow is always default to the common bird. This time with the scope I could see a pair of bright yellow legs, they jumped out at me! Right, so embarrassingly to say, I was still convincing myself this is a Redshank but a juvenile! Right time of year and juvenile Redshanks do have kind of yellowish legs, right? I looked again. Those legs were mega yellow. So, what other wader has yellow legs? "Mmmm", I thought, "no but it can't be, surely" So, my brain at this point was starting to kick in (always a bit slow)! A yellowlegs species was now firmly on the radar and I knew Lesser was the commoner of the two in the UK and Scotland. I have seen at least three in the UK and in the US and two of its larger cousin, the Greater Yellowlegs in the UK and again in the States.

I then went to my next piece of self-advice when trying to clinch an ID of a bird (not always possible), and that is: To find at least three pieces of clear evidence of what you are looking at, is the bird you think it is? For example, bill shape and length, what are the undertail coverts like, leg length and colour, mantle colour, primary projection, jizz etc. So again, I was scoping the bird and trying to take in as much detail as I could but only after I rattled off a few dodgy record shots with my bridge camera, just in case! By this time Redshank was dropping way off my radar, thankfully, and Lesser Yellowlegs was now at the forefront of my mind.

We had very bright yellow legs, the legs were definitely longer in proportion to the body than that of any common bird I could think of, and the knee joint reminded me of 'stilt-like'. The

overall body was very slim, elongated and the bird appeared dainty in appearance, "Wow I'm looking at a Lesser Yellowlegs surely!" I then clicked on the Collins guide on my phone just to make absolutely sure and to see what other features I could pull out. Lack of streaking down the flank, check, a cleaner white underside, check, and the clincher for me with the book pointing out a fine all dark bill, check!

As always, I try to put news out as soon as possible, but there was still the nagging doubt of "what if I'm wrong and make a fool of myself"! I get things wrong, even common birds, it's a part of life and birding for me and I don't consider myself an expert by any manner of means!

So, it's handy to know a few local birders who are very, very good with bird ID and so I quickly sent a WhatsApp back of the camera picture to John Sweeney. Then a quick call, "John", "Yeah", "It's Donald, I think I've got a Lesser Yellowlegs at Frankfield", John, "Ok, I'll have a look", Of course I forgot in my excitement that John on his own admission is not a lark by any stretch of the imagination, and I think he was still in his Jim Jams and most likely in his scratcher? John, "Mmmmm yip looks good to me, put it out". I put the news out at 10:34 hrs on the Clyde SOC grapevine.

Unfortunately, the bird was only a one-day bird but it was last seen (I think) by Fiona McLean at 21:40 hrs. I'm not sure how many people got to see it but I hope as many as possible did manage to connect as it was only later in the day when Val Wilson, assistant recorder sent me a message to congratulate me on finding a first for Clyde! I was delighted with that news and the Lesser Yellowlegs has become my best local find to date. Here's to the next one although this will be hard to beat!

Dedicated to Bruno, my trusty birding companion who was the catalyst for me working the patch. If it wasn't for him, all the bird counts from around the east end of Glasgow wouldn't exist, nor all the good local and national species records. He also proved that you could go birding with a dog.

Donald Wilson, Uddingston, Clyde.
Email: donaldfwilson@tiscali.co.uk

This record has been accepted by the Scottish Birds Records Committee (SBRC).

Serin, Lephenstrath Bridge, Kintyre, 6 June 2022 – first Argyll record

J.M. DICKSON

Plate 280. Serin, Kintyre, Argyll, 6 June 2022. © *Ann Hand*

To receive a message about a rare or unusual bird from the mainland part of Argyll, is itself a rare event, as most of our reports of such finds come from island areas, especially Islay and Tiree. In this case the mainland region was that of Kintyre, although sometimes referred to as the 'mainland island' comprising a 64 km (40 mile) long peninsula. I had been accustomed to getting occasional reports of scarce and rare finds from one key birder in this region such that Kintyre had become synonymous with Eddie Maguire - who had been the warden at the Machrihanish Seabird Observatory until his sad passing in 2021.

Plate 281. Serin, Kintyre, Argyll, 6 June 2022.
© Jo Goudie

Towards the end of 2021 I began receiving increasingly regular emails with good bird sightings from Ann and Noel Hand who had newly relocated from Stratford to Lephenstrath, a lowland area at the south end of Kintyre on the road before it begins the long climb up to the Mull of Kintyre. More recently our communications were by WhatsApp and at around 09:40 hrs on 6 June I saw three 'back of camera images' appearing on my phone which clearly showed a nice bright Serin! This was followed by "morning Jim, BOC shots of bird in our garden atm (timed at 09:12 hrs) - possibly Serin?". My immediate thought was – great, a new species for Argyll, then – must get there as it's still present! Quickly confirming to Ann and Noel that it was indeed a Serin, I suggested they put more food out, keep and eye on it and I'd be there asap, albeit some 105 km (65 miles) from Cairnbaan. Thinking that my nearest fellow birder David Jardine (DJ) would be interested and possibly available I messaged him and thankfully he was ready to meet up within 15 minutes.

We arrived at Lephenstrath Bridge about 11.30 and it was good to meet Ann and Noel at last. The bird hadn't shown for 20 minutes, so we watched from inside there house patiently with a coffee and cameras ready while still happily convincing A&N that the bird was indeed a male Serin, which of course they had suspected, but probably just wanted reassurance as this was a new species for them. After about 15 minutes of watching across their rear lawn towards a row of mature trees where groups of Siskins were coming to feeders, the Serin suddenly appeared on the lawn, but frustratingly disappeared behind some garden plants.

Trying to get a decent angle to view the bird through the small window was not easy so I suggested looking from outside the house. The Siskins continued to feed undisturbed about 30 m away and eventually the Serin reappeared feeding on the lawn for a minute or two every 15–20 minutes before flying into cover on one of the sycamores. It was then heard singing and DJ made several short recordings of this on video. During the brief spells the bird made down to the grass area to feed on sunflower hearts we managed some photos, but they were more record type shots than anything else, as it remained about 20 m away and was often partially hidden in the grass.

Having seen and heard the bird very well we decided to head back north and suggested A&N let other interested bird folk in south Kintyre know if they wished. Later in the afternoon Jo Goudie and David Millward, who are the new warden/custodians of the Machrihanish Seabird Observatory, made a visit and obtained some nice photos. The bird continued to pop down from the trees to feed every so often and was heard singing late into the evening. However, it was not seen the following day.

Description (as submitted to the SBRC):

General. A small finch/bunting type bird with a general resemblance to a small male Yellowhammer and lacking the obvious black and yellow wing bars of a Siskin. **Size & shape.** Roughly similar in size to a Siskin in overall length but appearing stockier in build rather than slim - and, also large headed/short necked. **Bill.** Short & stubby, dark silver-grey - not sharply pointed like a Siskin's or appearing as large as expected for a Yellowhammer. **Eye.** black. **Legs.** short, reddish brown and the bird was un-ringed. **Head & upperparts.** The most striking features of this bird was the bright yellow colour of the forecrown, supercilium, neck sides surrounding the ear-coverts, unmarked chin, throat, and breast/chest area

which formed a 'stand out' large apron area. The crown showed two broad areas of darker brown/yellow narrowly streaked (brown?) split by a narrow brighter and unmarked crown stripe. The ear-covers were also darker brownish yellow but un-streaked with a tiny brighter yellow spot within the rear ear-coverts. It also showed a quite broad/distinct dark sub-moustachial stripe. The back area was equally streaked dull yellow (greenish tones) & darker (mid- to dark brown). The closed wing showed narrow dull yellow wing bars i.e., tips to primary and greater coverts - not broad & bold as per Siskin and narrow pale (yellow/green?) edges to the outer parts of the secondaries - otherwise wings were dark brown. **Underparts.** Other than the un-marked bright yellow chest described above the rest of the underparts were heavily streaked dark brown on dull yellow background - mainly on the flanks. The belly/undertail area difficult to see as usually hidden by the grass. **Rump.** not really observed when the bird was feeding on the ground and only briefly seen as a yellow flash between the darker back & tail when it flew up. **Tail.** Not appearing long as - say a Yellowhammer. Mid-brown with greenish yellow edges and noted as slightly forked from a photo taken. **Behaviour.** Fed on the ground only – eating sunflower hearts – and did not use the hanging feeders at all. It fed on its own and not with the nearby clusters of Siskins a few metres away. It would feed for short spells then fly up to nearby well foliaged trees some 30–40 m away and occasionally sang. **Song.** A high pitched fairly-rapid, jingling song with some notes quite piercing, not scratchy and without any stops. **Sex/Ageing.** Originally thought to be a straight-forward adult male (male based on the bright yellow colouration and un-streaked areas on throat/breast etc *c.f.* female). Looking closely at some photos - possibly different age classes within the greater coverts (i.e., newly acquired this year and some retained from 1cy as well) which would point towards this being a 2cy rather than a 3cy or older bird. Nevertheless, technically I suppose they breed in year two so essentially an adult.

Plate 283. Serin, Kintyre, Argyll, 6 June 2022. © *Jo Goudie*

Plate 282. Serin, Kintyre, Argyll, 6 June 2022. © *Jim Dickson*

Jim Dickson, Cairnbaan, Argyll.
Email: Argyllbirder@outlook.com

This record has been accepted by the Scottish Birds Records Committee (SBRC).

Serin status in Scotland

Serin is an extremely rare migrant to Scotland, with 15 previous records to 2021, although no fewer than six of these have appeared since 2018 (SBRC data). Shetland and Fair Isle share eight records equally, with a further two on the Outer Hebrides, and a single from the Isle of May. From the Scottish mainland, there are just four records: Edinburgh, Lothian, November 1911; St Abb's Head, Borders, May 1998; Collieston, North-East Scotland, June 2020; Talmine, Highland, May 2021 (Drew, 2021. This record is currently being reviewed by SBRC). With records in five consecutive years 2018–2022, we can surely expect more in the near future.

References

Drew, T.P. 2021. Serin at Talmine, Sutherland - first Highland record. *Scottish Birds* 41: 363–364.

Scottish Birds

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Advice to contributors

There is a basic division in *Scottish Birds* between papers and short notes that are peer-reviewed followed by the Club and Birding sections which are not. These splits in content are highlighted by fonts used and paper colour.

The first part accepts manuscripts on the status, distribution and populations of birds in Scotland and, particularly, changes in these over time. Write-ups of census work find a natural home in this section, as do the culmination of research topics and updates to information in *The Birds of Scotland* (Forrester *et al.* 2007). Original work and observations are encouraged, but summary papers will be considered and key-note papers of a more general nature may occasionally be commissioned. Papers should be fully referenced as in any scientific work. House style should be followed and guidance is available on the SOC website. Articles of less than 700 words are generally considered as short notes, but are otherwise in a similar format.

Authors should bear in mind that only a small proportion of the *Scottish Birds* readership are scientists and should aim to present their material concisely, interestingly and clearly. Unfamiliar technical terms and symbols should be avoided wherever possible and, if deemed essential, should be explained. Supporting statistics should be kept to a minimum. All papers and short notes are accepted on the understanding that they have not been offered for publication elsewhere and that they will be subject to editing. Papers will be acknowledged on receipt and are normally reviewed by at least two members of the editorial panel and, in most cases, also by an independent referee. They will normally be published in order of acceptance of fully revised manuscripts.

The latter two sections of *Scottish Birds* welcome informal as well as more serious contributions about any aspect of birds and their habitats in Scotland. It is not peer-reviewed, has minimal editing, and contributions can be descriptive, anecdotal, controversial, humorous or quirky. They can report on surveys, express opinions, describe birds and places, look back into history, speculate as to the future and can represent organisations or be the work of private individuals. The documentation of rare and scarce birds in Scotland, plus a wide range of identification, site and species related information is lavishly illustrated by high quality colour photographs. We welcome photographs, maps, cartoons, and will accept basic graphs and tables when relevant. Meeting reports or field trip accounts are all welcome, but our main aim is to focus on Scottish birds in Scotland or abroad. We will occasionally include articles from other parts of the world and sometimes about other wildlife.

In terms of length, we accept anything from short notes up to articles of *c.* 2,000 words. There are no strict guidelines as to format, but we would encourage contributors to follow the house style (see SOC website for guidance, as detailed above). Within this section, we also publish obituaries of Club members and others who have contributed to Scottish ornithology. These are organised through Waterston House, where the Club Administrator will liaise with contributors. Book reviews are organised through the Club Librarian.

Please submit articles! We very much wish to encourage unsolicited contributions to this part of *Scottish Birds*. The editors spend much time requesting articles - a task that would be far less onerous if they are submitted freely from members and other readers. We wish to make it as easy as possible for contributors to send us material that reflects the enormous range of news, work and opinion relevant to Scotland's birds.

Text, image and graphics formats

Contributions should preferably be submitted in electronic format via email. Only short articles and letters can be accepted in printed or hand written form. No fees are paid. Tables, maps and diagrams should be designed to fit either a single column or the full page width. Table and photograph captions should be self-explanatory and should be able to stand alone from the text. Please include all captions after the text. For photographs please supply the locality and month/year taken (if known), together with the name of the photographer.

Maps should preferably be provided in pdf format, or as a high-resolution jpg/tiff file. Maps may be redrawn to maintain house style, in which case the data used in their compilation may be requested. Charts should be provided with their accompanying data within a stand-alone spreadsheet so that house style can be applied. Photographs should be supplied as direct copies of the original (un-altered and un-cropped) camera files.

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Scottish Charitable Incorporated Organisation **SC 009859**

PhotoSPOT

Plate 284. Seton Burn is a small stream flowing into the Firth of Forth, located between Seton Sands and Port Seton. It's the best place in Lothian to watch Mediterranean Gulls with decent numbers of juveniles and frequently returning colour-ringed adults appearing from July onwards. This summer the site also hosted a couple of Little Gulls, providing a rare opportunity to photograph Mediterranean, Black-headed and Little Gull all together.

On this particular evening, I was very lucky when all three species lined up one behind the other, resulting in a perfect comparison shot.

The Little Gull, at the front, is very small with a black bill and a dark spot behind the eye. Middle is the Black-headed Gull, with a redder bill, black in the primaries and a much smaller dark mark behind the eye. At the back is the Mediterranean Gull, with its bright red bill and white primaries.

Equipment used
Canon 80D camera, Sigma 150–600mm f5–6.3 lens, Shutter Priority, 1/400 second, ISO 1,000, f6.3.

James Boyle, Lothian.
@James_K_Boyle

Featuring the best images posted on the SOC website each quarter, PhotoSpot will present stunning portraits as well as record shots of something interesting, accompanied by the story behind the photograph and the equipment used. Upload your photos now - it's open to all.